

COMMITTEE WORKSHOP

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:)
) Docket No.
AGING POWER PLANT STUDY - IEPR) 03-IEP-01
_____))

CALIFORNIA ENERGY COMMISSION

HEARING ROOM A

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

WEDNESDAY, MARCH 24, 2004

9:36 A.M.

Reported by:
Peter Petty
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PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMITTEE MEMBERS AND ADVISORS PRESENT

John L. Geesman, Presiding Member

James D. Boyd, Associate Member

Melissa Jones, Advisor

Mike Smith, Advisor

STAFF PRESENT

Kevin Kennedy

David Ashukian

Matt Trask

Eileen Allen

Adam Pan

PUBLIC ADVISER

Margret Kim

ALSO PRESENT

Gregory Blue
Dynegy
West Coast Power

Tim E. Hemig
NRG Energy, Inc.
West Coast Power

Matt Greek
Reliant Energy

Barbara George
Women's Energy Matters

Karl Krupp
Marie Harrison
GreenAction

ALSO PRESENT

Paul Wuebben
South Coast Air Quality Management District

Vitaly Lee
AES Pacific, Inc.

Randall J. Hickok
Duke Energy North America

Steven Kelly
Independent Energy Producers Association

Kenneth J. Lim
Bay Area Air Quality Management District

Mary Jo Thomas
Philip D. Pettingill
California Independent System Operator

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I N D E X

	Page
Proceedings	1
Introductions	1.9
Opening Remarks	1
Presiding Member Geesman	1
Associate Member Boyd	2
Overview	3
Procedure	4
Presentations, CEC Staff	4
Aging Power Plant Study (APPS)	
Background - Purpose	
Integrated Energy Policy Report Process	
Integrated Energy Policy Report Schedule	
APPS Objectives	4
Study Group Selection Criteria	
Preliminary Data on Role in System of	
Selected Units	14
Questions/Comments	26
Proposed Study Methodology	32
Environmental Effects	38
Questions/Comments	44
Data and Informational Needs of APPS	75
CEC Staff Summary	77
Participant Presentations	78
West Coast Power; Dynegy, Inc. and NRG Energy	79
Reliant Energy	98

I N D E X

	Page
Workshop Summary	106
Questions/Comments	107
Closing Remarks	152
Adjournment	153
Certificate of Reporter	154

P R O C E E D I N G S

9:36 a.m.

PRESIDING MEMBER GEESMAN: I'm John

Geesman, one of the members of the Energy Commission and the Presiding Member of the Committee that's been established for both the 2005 Integrated Energy Policy Report and the 2004 update of last year's Integrated Energy Policy Report. It's that update that causes us to be here today.

To my right is my colleague, Commissioner James Boyd, who is the Presiding Member of the 2003 Integrated Energy Policy Report, and is the Associate Member of the Committee for the 2004 update.

To my left is my staff adviser, Melissa Jones; and to Commissioner Boyd's right is his adviser, Mike Smith.

We wanted to start today a series of workshops that we'll be holding over the course of the next five or six months on subjects identified in the 2003 Integrated Energy Policy Report for special attention in '04.

The first of these is titled, for lack of a better phrase, our aging power plant

1 analysis. Our primary purpose here is to try to
2 determine fact from urban legend. One of our dear
3 friends from the last Administration characterized
4 our aging power plants as, in many instances,
5 older than he was. I think that at least our
6 analysis would suggest that most of the plants
7 we're talking about are not even as old and
8 Commissioner Boyd and I.

9 So, our efforts are going to be to try
10 and determine what the facts are. We want to
11 establish a methodology that is transparent to
12 attempt to evaluate what benefits the existing
13 fleet of plants offer; what benefits they might be
14 expected to offer in the future; and how to
15 evaluate those, given the limitations of the
16 analytic tools available to us.

17 Our hope is to provide some objective
18 information to this Commission, to the ISO, Public
19 Utilities Commission, and to the Legislature and
20 Governor in determining an appropriate policy
21 toward these plants going forward.

22 Commissioner Boyd, did you have anything
23 you wanted to say?

24 COMMISSIONER BOYD: Thank you. I
25 believe you've pretty well covered the subject.

1 But as I look around the room I'm reminded that
2 many of you in the room brought this issue to our
3 attention during last year's series of hearings
4 and workshops on the 2003 IEPR. And as you see,
5 it earned a place in that document.

6 But now, I think as Commissioner Geesman
7 has ably put it, we seek the facts, we seek the
8 truth, so to speak, with regard to this issue in
9 order to help everybody address the issue.

10 It got a lot of attention politically
11 and otherwise, and now we need to see how it
12 really does bear on our future. So, as indicated,
13 we look forward to discussing this and a few other
14 things in a long series of workshops and hearings
15 throughout this year.

16 So, I welcome your input.

17 PRESIDING MEMBER GEESMAN: Now, Margret
18 Kim, our Public Adviser, standing at the back of
19 the room, she'll only be here for a portion of the
20 workshop this morning before leaving for some
21 meetings in southern California.

22 The most efficient way for us to arrange
23 for your comments would be if you fill out one of
24 these blue cards that are in the back of the room
25 and provide it to her. After she's gone you can

1 simply bring the card up to me and I'll call on
2 you in the order in which I receive the cards.

3 We do have an agenda that runs to the
4 early afternoon. We'll simply proceed for as long
5 as people are interested in talking to us. And
6 with that, why don't we start with Kevin Kennedy,
7 who is the project manager for the Integrated
8 Energy Policy Report.

9 MR. KENNEDY: Thank you, Commissioner
10 Geesman. As he said, my name is Kevin Kennedy and
11 I am managing the Integrated Energy Policy Report
12 or energy report, for short, through the 2004
13 update, and the 2005 energy report cycle.

14 Before we get started into the meat of
15 the day, I just want to run through a few quick
16 logistics. Some of you may not be particularly
17 familiar with the building here, so if you're in
18 need of restrooms, water fountain, pay phones, out
19 the door and off in that general direction.
20 There's also a coffee shop and snack shop that's
21 just upstairs. So those may prove useful.

22 As Commissioner Geesman mentioned, we
23 have an agenda that is perhaps optimistically laid
24 out to get us through by early afternoon. We
25 weren't quite sure how many folks would be showing

1 up; how much interest there will be in speaking as
2 we go through, but we're definitely interested in,
3 you know, the primary purpose of this workshop is
4 to hear what the people here have to say about the
5 direction that we are going; whether we're heading
6 in the right direction; whether there's things
7 that we should be adding or dropping from the
8 study as we move along.

9 So, we're anticipating staying here as
10 long as we need. It may go later in the afternoon
11 than the agenda indicates.

12 For the folks who are listening in on
13 the webcast we want to welcome our cyber audience,
14 as well. And actually I was going to mention that
15 I believe we have the workshop presentations, the
16 staff presentations up on our website. That was a
17 bit of a last-minute thing, so I'm not quite sure
18 that they are there yet. But a number of people
19 are shaking their head yes.

20 So we did manage to get them up online.
21 So if you want to follow along with the staff
22 presentations, those are available if you go to
23 our main website; click on the link which is just
24 a couple spots down in the middle for Integrated
25 Energy Policy Report. Follow the link there to

1 the 2004 update page; and the link there to the
2 documents and notices page. You'll be able to
3 find a portion of that that includes all the
4 information for this workshop, including the staff
5 presentation.

6 The actual address is [www.energy.ca.gov/](http://www.energy.ca.gov/2004_policy_update/documents/index.html)
7 2004 policy update/documents/index.html. So I
8 hope folks will be able to follow along.

9 As I say, there's other information
10 that's available, both in the back of the room
11 here, and on the web in terms of the staff
12 briefing paper that was distributed by the web
13 about a week ago. And a preliminary list of
14 plants that the staff is proposing as the ones
15 that would be, at least the initial list to be
16 looking at for this study. So all of that
17 information is available.

18 I also understand that there may have
19 been a few glitches in terms of making sure that
20 people knew that the staff briefing paper and the
21 preliminary list of documents were available on
22 the website. I heard from a few folks yesterday
23 that they hadn't -- they had heard about the
24 meeting but hadn't known that the briefing paper
25 was available.

1 For everyone here and everyone listening
2 on the web I would like to encourage folks to sign
3 up for the email list server that is actually
4 going to serve as the primary means of keeping
5 people up to date on the 2004 proceedings, update
6 proceedings, and the 2005 IEPR. You can find a
7 link for that on the main 2004 update page, down
8 sort of most of the page on the left-hand side.
9 There's a spot where you can enter your email
10 address to sign up for the list server.

11 Anytime that there's any information
12 posted to the web, including meeting notices, any
13 documents, anything else that goes to the web for
14 the energy report proceedings for 2004/2005,
15 anyone on that email list server will get an email
16 alerting you to that.

17 So we are doing our best to make sure
18 that we include people and have more direct
19 contact with the people who are directly
20 interested in the different parts of what we're
21 doing in 2004/2005. But that's going to be the
22 most reliable way of making sure that you know
23 what's going on. So I encourage everyone to sign
24 up for that.

25 We also have a court reporter here

1 today. So whenever anyone here is coming up to
2 make any comments or has any questions, it would
3 be useful both to speak directly into the
4 microphone and be sure to identify yourself. And
5 it will also be very useful, it's always good for
6 the court reporter to have a business card to help
7 him keep track of who is speaking. So if you have
8 business cards available, I'm sure he'd be happy
9 to make a collection of them. So, one thing to
10 keep in mind as you move along.

11 I definitely want to thank everybody for
12 taking the time to participate in this workshop
13 today. We have a very good turnout. I wasn't
14 quite sure how many folks to expect, but we've
15 done -- I'm pleased to see that the room is pretty
16 full.

17 This is going to be the first of a
18 number of workshops on this topic. We anticipate
19 most likely two more on the aging power plant
20 portion of the 2004 update, as well as one or more
21 workshops on each of the other 2004 update topics.
22 So we expect to be very busy over the next several
23 months. And that's just for sort of the work in
24 progress portion of the update. As we get to the
25 draft and draft final reports, we'll be having

1 additional, probably more formal, workshops or
2 hearings on those documents, as well.

3 I'd also like to introduce a few folks,
4 the staff members who are going to be speaking
5 today, in terms of presentations. Matt Trask is
6 acting as the project manager for staff on the
7 aging power plant portion of the 2004 update.
8 David Ashukian is manager of the electricity
9 office here at the Energy Commission. And Eileen
10 Allen is serving as the policy coordinator for the
11 environmental office here at the Energy
12 Commission. They will all be doing portions of
13 the staff presentation as we go through the day.

14 There's also a number of other staff who
15 are available, you know, if there are questions;
16 or as the discussion goes on, who it may be
17 appropriate for them to chime in, as well.

18 In terms of the order of the day, the
19 generation direction we're going, I'll give a
20 little bit of background, actually to some degree
21 Commissioner Geesman covered some of the
22 background on the Integrated Energy Policy Report
23 process, so I will keep that to a minimum.

24 From there we'll be going on to a
25 discussion of the criteria we are using for

1 figuring out which plants, which units should be
2 included in the study as we move forward.

3 Then there will be a staff presentation
4 on our proposed methodology, the direction we're
5 planning to go with the study. And then
6 discussion of the data needs and sources. And
7 then something of a general discussion of what the
8 right next steps are. Do we need to be breaking
9 into some working groups; you know, what the right
10 topics for the future workshops should be; where
11 we go from here.

12 Throughout the day we will be stopping
13 for comments, questions after each of these
14 topics. The idea for the day is not just for me
15 and the other members of staff to get up here and
16 talk to you guys and tell you what we're doing.
17 We are very interested in knowing whether or not
18 folks think we're going in the right direction;
19 whether there are issues that we are picking up in
20 the study that maybe are not as important and
21 maybe not worth the focus at the moment; or other
22 issues that we seem to have missed that we really
23 do need to be addressing. Whether or not, you
24 know, we're looking at the right plants, whether
25 or not the methodology makes sense.

1 We're hoping to make this a fairly
2 collaborative process. We definitely want input
3 and participation as we move along in the study.

4 In terms of the background information,
5 the energy report is a document that is required
6 every two years. The update is required in off
7 years. And as Commissioner Geesman mentioned,
8 we've identified three topics that we're looking
9 for in terms of this year's update. Aging power
10 plants; renewable resources; and transmission
11 planning.

12 And in addition to the workshops on
13 aging power plants, we have scheduled the
14 transmission planning workshop, if I'm remembering
15 the date right, the notice should be going out
16 today actually for an April 5th workshop. And we
17 are targeting a renewables workshop, I believe we
18 have it down on the calendar for April 19th. But
19 we'll be getting information, more specific
20 information out about those as we move along.

21 The general schedule that we're looking
22 at at this stage is from here through June on all
23 three update topics; we're looking at Committee
24 workshops like this on the work in progress.
25 Getting input, trying to make sure we're on the

1 right track with the different efforts.

2 By late July we're looking to published
3 draft reports on the different update topics. We
4 would expect in August to hold workshops and
5 hearings on those draft reports. Based on that
6 input and feedback we'd be looking at draft final
7 reports by sometime in mid September. By early
8 October we'd be looking at Committee workshops and
9 hearings on those leading to final Commission
10 adoption hearing in late October.

11 Getting into the study, itself, what
12 we're planning to do in terms of aging power
13 plants. There's really three primary objectives
14 that we have for this at this stage. First, we
15 want to analyze the role that the older power
16 plants are playing in maintaining a reliable power
17 system, including questions of the capacity
18 resources, local reliability resources and other
19 services.

20 We're also looking to assess the
21 environmental and natural gas implications that
22 would follow from continued reliance on the older
23 portions of the electric generation fleet in the
24 state.

25 And finally, we're trying to do some

1 examination to give us some good solid information
2 on the range of retirements that might be
3 anticipated in the next few years. And what those
4 retirements might mean in terms of the reliability
5 of the system, in terms of natural gas use, in
6 terms of environmental effects.

7 In terms of the workshop, as I said, and
8 as Commissioner Geesman pointed out, we are very
9 much looking for input and collaboration as we
10 move forward. The point of the day today very
11 much is to get input from all the interested
12 parties here in terms of the proposed approach;
13 what other issues might be included or perhaps
14 dropped; how to best structure stakeholder
15 participation as we move forward; what the best
16 sources of information are; how we move forward
17 from there.

18 With that, as I said, after sort of
19 every major topic we will offer some opportunity
20 for comments and questions. Not sure that there's
21 really a lot to comment on at the moment, but
22 there will also, within the agenda there is a spot
23 for people here to make presentations or make
24 statements.

25 The initial part of the workshop we're

1 focusing on the direction staff is going, so
2 you'll have some opportunity to react to that.
3 And there will be a portion of the meeting
4 dedicated to allowing other people to have their
5 say about what's up with these issues. But, as we
6 go along we're certainly looking for comments and
7 questions on what staff is presenting as we go.

8 Does anyone have any comments or
9 questions at this point? Okay. With that I will
10 hand things over to David Ashukian, who is going
11 to be talking about the basic criteria that we are
12 using in terms of the plants that we're selecting
13 for the study. And we'll also be presenting some
14 fairly general information about sort of what we
15 know about those plants that we have on our
16 preliminary list, in a collective sense.

17 This is not meant to, you know, signal
18 that this is the nature of the analysis we'll be
19 doing as we go along, but just trying to give
20 people a good sense of what we know about the
21 plants, as a group. Dave.

22 MR. ASHUKIAN: Thank you, Kevin. I'm
23 Dave Ashukian with the electricity analysis
24 office, manager of the office. And what I'm going
25 to talk about is basically some more general

1 information about the plants in California, as
2 well as some specific data on how they're operated
3 currently, or how they have been operated over the
4 past few years.

5 This slide here shows a kind of overview
6 of all electric generating units in California.
7 And as you see, we've broken them out from the
8 natural gas powered units and the other types of
9 units.

10 Now, what we have in the other section,
11 about 25,000 megawatts includes hydro, renewables,
12 nuclear, any other fuel type other than natural
13 gas.

14 The other natural gas portion at the
15 bottom, about 14,000 megawatts, includes peakers,
16 cogeneration and units built after 1980, which is
17 where we've kind of taken an arbitrary cutoff
18 between what we're considering older.

19 The top right-hand corner, the older
20 natural gas units, include basically the steam
21 turbines that are 1980 and older. Those represent
22 about 17,000 megawatts of the state's total
23 combined units, equate to about 60,500 megawatts
24 of total dependable capacity.

25 What we did was attempt to try to narrow

1 down this group so that if we, in fact, want to
2 take a closer, more granular look at individual
3 units, we don't look at 600 plants, 600 units.
4 And so what we wanted to do was determine
5 basically what would be a better group, a smaller
6 group that was representative of aging plants.

7 So we focused on units that were
8 obviously grid connected, those that actually
9 affect, you know, the supply in the state. Those
10 are -- that are natural gas fueled. One of the
11 issues that was raised during the 2003 IEPR
12 process was the potential inefficiency of these
13 older plants and their effect on natural gas
14 consumption.

15 We looked at units, again based on their
16 age, 1980 or older, as again an arbitrary place to
17 consider what's older. And we also looked at
18 plants that were only larger than 10 megawatts,
19 given that there's a number of small units that,
20 again, individually don't have as significant an
21 impact on the total reliability to the state.

22 We excluded peakers, primarily because
23 of their low capacity factors and the fact that
24 they are, in fact, designed to only run at very
25 intermittent opportunities. So that their role is

1 much different overall than some of the more
2 older, baseline units.

3 And we also excluded plants that we have
4 information that we expect to retire on or before
5 2005, knowing that they're going to be potentially
6 gone on their own, and that studying them is this
7 process is probably not necessary.

8 I don't have a slide of the actual group
9 of plants. It's actually been published at the
10 end of our briefing paper that came out on the web
11 last week. There's also some copies in the back.
12 There are a total of 66 units on that, what we
13 call our selected group. And one of the things
14 that we'd like to solicit questions on is your
15 input on that group; if there are plants that
16 should be added, plants that may be taken off; is
17 the group too large; is it too small, et cetera.
18 So that's, you know, what I'd like you to think
19 about as you're seeing some of the data we're
20 presenting.

21 This group of 66 plants actually are
22 located at about 22, 23 sites across California.
23 And so this is a map showing relative where those
24 units are located, relative to California as a
25 whole. And as you can see, 66 units, you know,

1 are pretty well confined to a fewer number of
2 sites.

3 This slide here shows the monthly output
4 of this group of plants, the 66 units, over the
5 last seven years or so. And what you can see
6 here, if you look closely at the bottom, is that
7 what we have is the monthly output; and the spikes
8 are essentially the output during the summer
9 months. The valleys are their output, combined
10 output during the winter low peak, offpeak
11 periods.

12 You can also see here towards the right-
13 hand side that there's a group from about July
14 2000 to October 2001. That was essentially the
15 electricity crisis. And you can see these plants
16 were run much more heavily during that period.
17 And also during the winter of that period they
18 were also more significantly run. So this shows
19 you how they were actually operated during that
20 period.

21 The lower level, the magenta line, which
22 I call the coastal range, is the group of RMR
23 plants that are part of our group. So those are
24 plants that were RMR 2002 that -- how those
25 operated as a subset of this group.

1 This here is a little bit closer look at
2 the same slide that you just saw focusing on the
3 last couple of years. And again here it shows the
4 energy crisis period -- the electricity crisis, I
5 should say, and then their operation during the
6 last couple summers.

7 What the yellow bars show is their
8 output during the summer months, the high peak
9 demand months. The percentages, both peak and
10 low, are the combined capacity factors for this
11 group. And what this slide shows is that, in
12 fact, since the energy crisis there has been a
13 steady decline in their output over the last few
14 years.

15 This here shows their total production
16 compared to all production in the state in energy.
17 And what it shows is that they produce somewhere
18 between 12 and 27 percent of the total energy in
19 this state. And, again, here you can see the
20 slight increase over 2000/2001 as well as the
21 continued decline after that. We don't have a
22 complete set of data for 2003, but we believe it
23 will show that these are continuing to decline in
24 total energy production.

25 Thinking back to the first slide,

1 remember that these plants represent about 28
2 percent of the total capacity in the state. And
3 so their energy produced between 12 and 27
4 percent, so there is still a pretty significant
5 amount of energy produced by these plants.

6 This slide here is again a more -- look
7 at the hourly output of these plants. And we're
8 looking at that compared to some other units that
9 are operating. The slide on the -- the chart on
10 the left shows their hourly output during the peak
11 summer week of 2002. And it's compared to the
12 same week of a group of peaker plants that were
13 built around in 2001 to 2002.

14 So the chart on the right are peaker
15 plants, fairly new peaker plants. And the chart
16 on the left are these older units combined. What
17 this shows is that there seems to be quite a
18 similarity between how these plants are operated
19 and how peakers are operated. The major
20 difference is that these don't turn off at night.
21 They continue to run at low capacity and then ramp
22 up again during the peak day. Or as the peaker
23 plants, most of the time, actually go completely
24 to zero at night.

25 This here shows again a similar

1 comparison, same group on the left compared to a
2 baseload unit on the right. Now, this happens to
3 be a cold unit. We didn't have complete data on,
4 for instance, a brand new combined cycle. But it
5 shows that baseload units are run much differently
6 than these plants have been run.

7 Now, one thing to consider is that when
8 these plants were originally designed, they were
9 actually designed to run as baseload units. So
10 that's part of the reason why it's more difficult
11 for them to actually turn off at night and turn
12 back on. They have a longer startup time, warm-up
13 time, and have a longer ramp-up time.

14 This slide here is again another way to
15 look at the total output over the total number of
16 hours in a year. And what this shows is again
17 their megawatt capacity over each individual hour
18 or groups of hours across a full year.

19 The blue line shows the total dependable
20 capacity of 17,000 megawatts. If all these plants
21 were to operate at full capacity that's what you
22 would get out of them. The lowest line there,
23 the 2002 output, is what they actually produced.

24 So, as you can see, for only a few hours
25 a year they are producing a significant amount of

1 energy to meet the peak demand. For the most part
2 they're running at significantly lower capacity
3 levels.

4 Moving into natural gas and other
5 resource issues, this slide shows that our natural
6 gas consumption, compared to all natural gas units
7 in the state, as well as compared to the total
8 natural gas consumption in the state. And, again,
9 you can see here their consumption increased
10 during 2000/2001, as well as all natural gas
11 consumption from electric generation.

12 Also a pretty significant portion of the
13 total natural gas consumption in the state.
14 Actually they consume between 16 and 30 percent of
15 all gas consumption. They actually also produced
16 or consumed between 40 and 65 percent of the
17 natural gas consumed for all electric generation.
18 So even though they're only 28 percent of the
19 total natural gas production, or actually 28
20 percent of the total production, they're consuming
21 a pretty significant portion of the natural gas
22 used for producing electricity.

23 This here shows the relative efficiency
24 in the heat rate basically, the Btus per kilowatt
25 hour, of these units compared to other units that

1 are in the system. Our group of plants, the 66
2 units, are on the left-hand column. With an
3 average heat rate of just about 10,000 Btus per
4 kilowatt hour.

5 The second column are new peakers; these
6 are peakers that were built in 2000, 2001 --
7 actually 2001, 2002, as a result of, you know, the
8 boom cycle of building some plants to address the
9 electricity crisis.

10 The third column are new combined cycle
11 plants. And the last column are all the other
12 units, including cogeneration, older peakers and
13 other plants that were built after 1980.

14 What this slide shows is that although
15 they have a pretty inefficient overall rate of
16 heat rate, they aren't the worst out there. There
17 are some peakers that are worse than these. And
18 one thing to consider, if these were to go away
19 we'd have to carefully consider what would replace
20 them. Because it's possible that something that
21 replaces them could use actually more natural gas
22 than these plants are using right now.

23 This looks at the total NOx emissions
24 from these units compared to the total NOx from
25 all natural gas fired units. And again, you'll

1 see the same shape as you've seen in previous
2 slides, how it has increased during the 2000/2001
3 period. And their portion of that emissions
4 compared to all plants. Their emissions are about
5 between 20 and 55 percent of all the emissions
6 produced by natural gas plants.

7 Again, what I'm to note here is that
8 again, even though their output -- their emissions
9 output went up during the 2000/2001 period, the
10 total emissions from all plants actually didn't go
11 up. It stayed, maintained the same, or actually
12 continued to decline.

13 This slide shows their emissions
14 compared to, again these plants, as well as the
15 total inventory in the state. And although they
16 did have a significant contribution to the
17 emissions from electric generation they were only
18 a very small portion of the total emissions in the
19 state. What this doesn't capture is the potential
20 local impacts of these plants, you know, at the
21 local level, at the individual unit level.

22 This slide here again is a kind of a
23 trend of their emission rates relative to other
24 units and over time. What it shows is that since
25 about 1996 overall their total emission rates have

1 been dropping. This is in response to air quality
2 regulations and other, you know, emission controls
3 being put on these plants.

4 The second line, the dotted line, shows
5 that if you took out just two of the units,
6 Humboldt and Coolwater, their overall emissions
7 decrease pretty significantly. Those are pretty
8 significant emitters compared to the group
9 overall.

10 The four plants on the right-hand side
11 show a comparison of these average emission rates
12 compared to some new units. The two Gilroy and
13 Border are new peaker plants, and Sutter and Moss
14 Landing are new combined cycles.

15 So you can see that they are higher than
16 brand new plants, but overall the trend has been
17 going pretty good.

18 We'll be hearing some more information
19 about other environmental attributes, as well as
20 some more details about the air quality when
21 Eileen Allen talks about our methodology.

22 And that's actually the last slide on my
23 group. And I'd like to open it up to questions
24 and also comments about our list of plants that
25 we've chosen.

1 MS. GEORGE: I wanted to ask about -- my
2 name is Barbara George, Women's Energy Matters.
3 And I wanted to find out when you're talking about
4 emissions in these last few slides did you mean
5 just the NOx emissions, or did you mean the
6 particulate matter and everything else?

7 MR. ASHUKIAN: This was just NOx.

8 MS. GEORGE: Okay.

9 MR. ASHUKIAN: Any other questions?

10 MR. KRUPP: Karl Krupp from GreenAction.
11 You know, I can't comment on a lot of the power
12 plants there, but I know, for instance, that
13 Hunter's Point, last year, maybe overlapping the
14 next year before that, was out of operation for
15 about eight months.

16 These are obviously very old plants.
17 How does actually all of the operational, you
18 know, issues impact your slides in terms of -- I
19 mean obviously if they don't operate for long
20 periods then it looks as though they're actually
21 emitting a lot less, right, than they would if
22 they were actually operating at full capacity
23 during the whole period that you're describing in
24 your slide.

25 MR. ASHUKIAN: That's correct. This

1 data is representing actual operations, not
2 potential operations. So, obviously if they were
3 operating at higher capacity levels the number
4 would change.

5 PRESIDING MEMBER GEESMAN: Dave, I think
6 the implication of his question, as well, is as
7 the population of plants operating in a particular
8 year changes, as the gentleman suggested, taking
9 Hunter's Point out last year, that's going to
10 drive the numbers as well, isn't it?

11 MR. ASHUKIAN: Correct. I guess one of
12 the things to consider is overall trends. The
13 data shows the group of 66 plants as a whole, and
14 individual plants can make a significant
15 difference as we've seen in the emission rate
16 slide. But as a whole, the trends are probably
17 still going to be pretty indicative of the overall
18 activity.

19 PRESIDING MEMBER GEESMAN: I guess I
20 continue to have a concern when we aggregate air
21 quality data over a statewide basis. Nobody
22 breathes statewide air. Is there any ability to
23 disaggregate this to primary air basins?

24 MR. ASHUKIAN: Well, this is the data we
25 have in our office, and actually, I think, one of

1 the air quality folks here can maybe answer that
2 question. I don't have the answer to that.

3 Although one of the intents of our methodology
4 activities is to look at these plants more at an
5 individual basis and see how that potentially can
6 be affected by the local area.

7 PRESIDING MEMBER GEESMAN: Okay.

8 MR. ASHUKIAN: Yeah, Matt just reminded
9 me that the list does have emission rates from
10 each individual plant, but again it doesn't give
11 you an indication of the potential impact of that
12 surrounding area.

13 We also have the air basin and the
14 location of that plant so that can give you some
15 more information about that, as well.

16 If there's no other questions I guess
17 we'll --

18 MS. HARRISON: Good morning, Marie
19 Harrison from GreenAction and Bay View/Hunter's
20 Point. I just have to note that there was no
21 numbers for the NOx emission from Hunter's Point
22 plant. Was that an omission, skip?

23 MR. ASHUKIAN: No numbers on our --

24 MS. HARRISON: There was no numbers
25 indicating --

1 MR. ASHUKIAN: In our -- yeah, I believe
2 Hunter's Point was out of operation and/or it's
3 been used as a -- I think it's been used as an
4 ancillary service, not actual output. So, I think
5 that's part of the reason. But Adam has more
6 information about the individual unit.

7 MR. PAN: My name is Adam Pan. I work
8 in the electricity analysis office. Hunter's
9 Point has a funny arrangement at the plant that --
10 common steam header or a common stack where
11 several units emission going to the same measuring
12 device.

13 So for the period we were showing data
14 when Hunter's Point 2 and 3 were running and those
15 three, Hunter's 2, 3, 4, the emissions were
16 intermixed together, cannot be separate out. So
17 we did not include the data there.

18 But since the 2 and 3 retired, and the
19 data for Hunter's Point is just Hunter's Point 4.
20 So for the more recent years we have the data we
21 can analyze. Just for this group of overall trend
22 we did not include.

23 MR. ASHUKIAN: Paul.

24 MR. WUEBBEN: Good morning, Mr. Chairman
25 and Dave. I'm Paul Wuebben with the South Coast

1 Air Quality Management District. Just had a few
2 questions. I want to compliment you first for
3 trying to take a comprehensive view of this
4 question.

5 Have you looked at how our environmental
6 dispatch of rules, particularly rule 2009, applies
7 to some of the sources in our air basin? Have you
8 got to that grain of analysis to --

9 MR. ASHUKIAN: Not at this point.

10 MR. WUEBBEN: Okay.

11 MR. ASHUKIAN: We will be doing that as
12 part of the study, but that --

13 MR. WUEBBEN: Okay.

14 MR. ASHUKIAN: -- is to come.

15 MR. WUEBBEN: So I assume from that,
16 then, that you have not looked, or that your
17 emission rates don't reflect the application of
18 the recently adopted rule 2009, which includes
19 best available retrofit control technology?

20 MR. ASHUKIAN: That's correct.

21 MR. WUEBBEN: Okay.

22 MR. ASHUKIAN: This particular data is
23 only actual operating information. And we do
24 anticipate further reductions from those based on
25 the new rules -- the rules that have already been

1 promulgated.

2 MR. WUEBBEN: Good. And then laying on
3 top of that, with your period, that becomes an
4 important focal point, that energy crisis period.
5 Does that period include the diesel generation
6 that was being added in to offset or to supplement
7 the generation?

8 MR. ASHUKIAN: These emissions are only
9 from the natural gas fired units.

10 MR. WUEBBEN: Okay. Because there were
11 impacts, obviously, from that diesel generation.
12 I mean you're looking at, you know, 20 to 30
13 pounds per megawatt hour compared to an
14 uncontrolled boiler at two to four, and a
15 controlled combined cycle at half, and our
16 environmental dispatch gets that down to .11, as
17 you know.

18 And so as we get not just 9, but 7 and 5
19 ppm plants online, that that's important.

20 One last question, I guess, just at this
21 stage, and we certainly look forward to working
22 with you, sharing a lot of data as best we can.
23 When you look at plants that are being retired,
24 are you trying to track some of those? Because we
25 understand, for example, that while Reliant has

1 indicated that they're going to be shutting down,
2 for example, the Etiwanda plants, that they may
3 bring those back online and try to re-sell them in
4 2005. So there may be some discontinuities there
5 that you want to really carefully track.

6 MR. ASHUKIAN: That's a good point.

7 MR. WUEBBEN: Thank you.

8 MR. ASHUKIAN: If there are no other
9 questions we'll move on to the next presenter
10 which is Matt Trask, who will discuss our
11 methodology.

12 MR. TRASK: Thanks, Dave. I'm Matt
13 Trask; I'm the project manager for the aging power
14 plant study. And I'm here to talk about our
15 methodology.

16 It is a proposed methodology; I want to
17 emphasize that. Right now it's essentially a
18 barebones methodology, and we're looking to enlist
19 your aid in fleshing it out into our complete
20 methodology.

21 First thing we'll do is gather as much
22 data as we can; and I'll be talking a little bit
23 more later about the actual data and information
24 needs that we'll have.

25 Dave mentioned we'll be looking at

1 essentially two periods for the operational
2 history: 2001, which was during the so-called
3 power emergency when these plants tended to
4 operate at very high capacity factors. And in
5 2003, which we think is a more typical generation
6 profile that we'll see from these units.

7 We'll also be gathering as much
8 information as we can about contractual
9 information. These would be contracts with the
10 Department of Water Resources, for instance, as
11 well as with the Independent System Operator.

12 And we're also looking for anything that
13 would affect the economics of these plants;
14 projects, plans, policies. These could be thinks
15 like transmission lines that perhaps would
16 alleviate the need for a reliability/must run
17 plant in a given area. Plans and policies could
18 be things like the Public Utilities Commission's
19 resource adequacy and procurement proceedings.
20 Virtually anything that we think might affect the
21 economics of these aging plants.

22 And then we'll also be looking to gather
23 data on the breakdown and failure rates of these
24 older plants. It is generally known that the
25 older the plant the greater chance there is for a

1 failure or a breakdown. And, of course, you can't
2 schedule those; could be at the exact worst time.
3 Again, I'll talk a little bit more about the data
4 needs a little bit later.

5 Once we have what we feel is a
6 sufficient amount of information to move forward,
7 we're proposing to classify the generation units
8 based on retirement or failure risk. That's
9 probably one of the more difficult areas and
10 certainly an area that we'd be looking at lot for
11 comments.

12 Certainly one of the main things that
13 we'll be basing on is actual statements from the
14 generators, themselves. I got a call yesterday
15 from Fred Fletcher at Burbank Water and Power, and
16 he assured me that his units are not going to be
17 retired any time soon. So we would generally
18 classify that as a very low risk retirement.

19 Conversely, if somebody tells me, we're
20 turning the lights off tomorrow, that would be a
21 very high risk of retirement. But without
22 statements of those to us we would have to base it
23 on other criteria such as just the type of
24 generating unit, sort of the desirability of the
25 surrounding land use. In other words, whether it

1 be incentive to converting other use, say condos
2 or whatever.

3 And then once we can establish that
4 criteria, again we're really looking for you folks
5 to help us out in that.

6 We will establish blocks of high, low,
7 medium risk of retirement and high, low, medium
8 risk of failure. And then we'll quantify each one
9 of those as blocks of power plants.

10 Once we have those blocks of power
11 plants or blocks of capacity we're going to plug
12 those into rather basic supply/demand balances or
13 the back-of-envelope balances, as well as conduct
14 modeling, electric modeling for each one of those
15 blocks of retirements.

16 Our study period is the present through
17 2008. We feel that beyond that that not only
18 would our analysis be somewhat speculative, but we
19 feel that by 2009 the PUC's resource adequacy
20 proceedings should be well implemented and would
21 probably alleviate the need for, or at least
22 greatly reduce the need to worry about these
23 plants as far as providing reliability or backup
24 generation.

25 We're going to develop a range of

1 scenarios, several scenarios based on a range of
2 retirements, as I mentioned. We're also develop
3 sort of what we call the perfect storm or the
4 extreme cases. We may just assume that all of
5 them run at 100 percent capacity factor. And then
6 we may assume that all of them are retired. Sort
7 of give the extreme ends of the analysis.

8 Out of this we hope to, one, identify
9 the system effects; but, two, also identify local
10 reliability concerns, areas where there might be
11 transmission constraints, natural gas supply
12 constraints, that kind of thing where an
13 individual plant or small group of plants, if they
14 did retire, could create reliability problems.

15 We will also be looking at what would
16 likely occur if one of these plants did retire.
17 We don't believe it's reasonable to assume that
18 nothing will happen once they go away, so they
19 will likely be replaced by any number of
20 possibilities. It could be a new or repowered
21 power plant. Could be a transmission project or
22 an upgrade to an existing transmission line that
23 may alleviate the need for a reliability service
24 plant in a particular area.

25 We'll be, of course, keeping track

1 closely with other projects going on here in the
2 Energy Commission. The renewable energy
3 proceeding that's also part of the IEPR, and how
4 that will fit into the need for future resources.
5 And similarly with distributed generation and
6 demand side management, which is efficiency and
7 conservation.

8 We're going to take the output of the
9 electric modeling and plug that into natural gas
10 modeling to try to assess the impact on the system
11 and on the natural gas pricing from the
12 retirements and the continued operation of these
13 plants. We'll provide, you saw earlier from some
14 of David's slides, we'll be providing data on
15 historic gas use of these power plants, as well as
16 try to model the future use.

17 Again, we're looking at a range of
18 operations just like we did with the electric
19 modeling. Blocks of power plants; assumed
20 retirement; plus maybe our perfect storm or
21 extreme cases. On the gas side some other factors
22 that might affect, the extreme cases would be the
23 fact that mostly we have the peaks in the winter.
24 So perhaps the worst case there would be like we
25 had in the winter of 2000/2001 where the plants

1 were operating a lot.

2 And then finally we are going to try to
3 identify and quantify the environmental effects of
4 the continued operation of these plants and look
5 for opportunities as well as problems there. And
6 to talk about that we have Eileen Allen, who is
7 the policy coordinator from the environmental
8 office. Eileen.

9 MS. ALLEN: Thank you, Matt. I'm going
10 to focus on three major environmental areas: air
11 emissions, once-through cooling, and land use
12 factors. I'll hit the highlights, with Matt
13 Layton and Rick York of the staff available for
14 questions and answers on air emissions and
15 biological effects of once-through cooling.

16 Starting with the air emission picture
17 this slide provides some background, and then I'll
18 get into the proposed study approach. From an air
19 emissions standpoint we have a relatively clean
20 system relative to other states and countries. We
21 rely on a mix of hydro imports from other states,
22 nuclear generation, renewables and a large
23 installed fleet of natural gas fired units, which
24 is what we're talking about today, as well as the
25 newer gas fired units that have been recently

1 built.

2 We have a broad use of emission
3 controls, primarily selective catalytic reduction
4 or SCR, for NOx control. The systems air emission
5 footprint should continue to improve as new units
6 are cleaner and more efficient than the system
7 average. Additionally, existing retrofit rules
8 are being implemented by the air districts and new
9 rules may be adopted.

10 Please note that on your list of the
11 study plants that list has 2002 NOx emission
12 factors, but it identifies the March 2004 status
13 with respect to SCR installation plans. Post 2002
14 emission factors will reflect SCR installation and
15 will be lower than the values shown on the list.

16 Continuing with the air picture. The
17 air district retrofit rules have been negotiated
18 and were in place prior to divestiture. The
19 background for this retrofit picture and
20 divestiture is that in the early 1990s the Air
21 Resources Board and the air districts initiated
22 NOx retrofit rules for the large utility-owned
23 boilers. The retrofits were based on cost
24 effectiveness. And they were designed to be
25 implemented over a period of one to ten years.

1 AB-1890 suggested that the investor-
2 owned utilities divest at least 50 percent of
3 their thermal generating capacity. As a result,
4 over 17,000 megawatts of generation were sold.
5 During the divestiture proceedings on those
6 facilities in the late 1990s, which was a CPUC
7 proceeding, the CPUC's EIR reiterated the
8 importance of the NOx retrofits to overall
9 environmental compliance and required the rules to
10 be applied regardless of ownership. So those
11 rules are in effect now and SCR has been installed
12 on a widespread basis.

13 Getting on to the proposed study
14 approach for air emissions, as existing retrofit
15 rules continue to be implemented, we'll be looking
16 at whether they can be coordinated with other
17 plant outages and retirements. If new retrofit
18 rules are adopted, will they be the most cost
19 effective reductions available. Can they be
20 coordinated with other plant outages and potential
21 retirements. And do they increase our reliance on
22 natural gas.

23 For new or replacement power plants
24 we'll be looking at when and where, and whether
25 offsets and other mitigation will be available or

1 required at the district level.

2 Moving on to the once-through cooling
3 topic. As you can see it's the coastal plants
4 that are using once-through cooling technology
5 with seawater taken in and later discharged.
6 Please note that on your list of proposed study
7 plants, the list incorrectly identifies the El
8 Centro facility as once-through cooled. As you
9 know it's definitely not on the coast. It's in
10 the Imperial Valley.

11 Looking at the regulatory requirements
12 for once-through cooling, with impact primarily
13 related to biological resources and overall
14 protection of the ocean and coastal environment,
15 there's something called the NPDES permit which
16 stands for National Pollution Discharge
17 Elimination System. These permits are usually
18 handled by the Regional Water Quality Control
19 Boards.

20 They have two features that are
21 addressed. 316A addressing thermal discharge
22 which relates to the effects of temperature change
23 as warm cooling water is released into the ocean
24 from the plant. And 316B addresses the impacts of
25 entrainment and impingement on marine species.

1 Impingement is when fish are held against a power
2 plant's intake screen by water pressure. And then
3 entrainment is when smaller fish pass through one
4 of those screens into the power plant mechanism,
5 itself, along with the cooling water.

6 There are two agencies that look at
7 consistency determinations. The California
8 Coastal Commission, in conjunction with the
9 Coastal Act, makes a consistency determination on
10 whether these plants with once-through cooling are
11 consistent. And then the regional boards or the
12 State Water Resources Control Board look for
13 consistency with the Porter-Cologne Water Quality
14 Control Act.

15 Then as far as our proposed study
16 approach for once-through cooling we'll be looking
17 at individual plant permit renewal schedules and
18 requirements as it relates to the NPDES permits;
19 Entrainment and impingement studies; project-
20 specific impacts related to each plant and its
21 coastal environment; cumulative impacts of that
22 plant and any other projects that are known in the
23 area; and other facilities that are using once-
24 through cooling in the region. And then the
25 cost/benefits of upgrading to modern design

1 standards for once-through cooling.

2 Moving on to land use, our proposed
3 study approach will take a look at site re-use
4 plans that are developed by communities that
5 encompass aging power plant facilities. With
6 respect to the phrase site re-use, this
7 encompasses general plan updating processes,
8 redevelopment plans, and any other community
9 planning processes that take these facilities into
10 account.

11 I've intentionally stayed away from the
12 use of the word redevelopment here because it
13 sometimes carries some specific tax and finance
14 implications. So we've used the phrase site re-
15 use.

16 We are currently drafting a survey for
17 cities and counties with ageing power plants in
18 their jurisdictions, asking about any plans
19 affecting the plant sites. Currently we're aware
20 of three community plans for site re-use or
21 incorporation of the facility in a new land use
22 planning process.

23 We'll also be looking at development
24 pressures and community priorities in highly
25 desirable land use areas such as waterfront areas

1 and coastal wetland recreation zones. We'll be
2 looking at overall land use compatibility; whether
3 the power plant facility seems to be a good fit
4 for its neighborhood, given local trends.

5 That brings me to the overall
6 environmental study questions, our air emissions,
7 once-through cooling and land use, the appropriate
8 environmental factors for this study. We'd like
9 to hear from you on this. And also are the
10 environmental study approaches that I've outlined
11 reasonable and appropriate for an examination of
12 these plants.

13 So that concludes my part of the
14 presentation.

15 MR. TRASK: With that we'd like to open
16 the floor for questions and comments about our
17 overall methodology, both on the environmental
18 side, as well as the other factors that I
19 mentioned.

20 MS. HARRISON: Good afternoon. First of
21 all, let me say I was rather impressed with the
22 fact that you were using a -- it's going to sound
23 like I'm not impressed with it, but I think you
24 did a pretty good methodology there. Excepting
25 you were looking at a cumulative factors on the

1 fish, which is, from my area of responsibility, is
2 a pretty good deal excepting that you're not
3 looking at the cumulative effects on human beings.

4 And somewhere in there you've got to,
5 you know, climb that chain and look at the
6 cumulative effects of human beings, people who
7 live around that area. Outside of the fact that
8 in my particular area they do still fish from
9 there and they still do eat the fish. And the
10 fish, I'm sure you're aware of what the EPA says
11 about the fish in our particular bay.

12 But, there's other things going on
13 around in some areas. I really want you to look
14 at, we believe that you should look at what's
15 going on in the area. You're looking at air
16 quality, you're looking at only one little thing
17 that's putting out emissions. What about what's
18 going on around it. All that should come into
19 effect.

20 Actually, when you're talking about
21 environmental justice, if you don't place the
22 people first, then you're not really talking about
23 environmental justice.

24 MS. ALLEN: Thank you, Ms. Harrison. I
25 appreciate you articulating what I referred to as

1 community priorities in various land use areas.

2 So we will be looking at that.

3 Are there any other questions for me?

4 MR. LEE: Vitaly Lee with AES. I just
5 had a general question. The energy report was
6 made public last year. I know that update will
7 probably be made public. What about the findings
8 of this APPS, will those be public?

9 MS. ALLEN: I'm going to defer that to
10 Matt and Kevin.

11 MR. TRASK: Yes, it will be public. It
12 will be part of the update of last year's IEPR.

13 MR. KRUPP: Karl Krupp, GreenAction.
14 Can I get an additional clarification on that last
15 point that Marie brought up? Does that mean
16 you're going to be looking at cumulative impact
17 for power plants that are not once-through cooled?

18 MS. ALLEN: The primary focus of the
19 study will be looking at the older plants on the
20 list; but by the nature of looking at land use,
21 we've got to take into account other projects in
22 the area and future projects that we're aware of.

23 MR. KRUPP: Yeah, I guess our main
24 concern there is if you look at this list of power
25 plants, as somebody alluded to early in one

1 presentation, they're very concentrated. And they
2 are affecting, in the case of Hunter's Point,
3 there are two of the larger plants that are on
4 this list, that are really literally within about
5 ten square miles, and really impact that area very
6 heavily.

7 So our concern is just that you're
8 looking at, at least, all of the plants that are
9 in the area and their combined cumulative impact
10 on the community. So I'm expressing that concern.

11 My second question has to do with how
12 you're going to calculate breakdown failure rates.
13 Where are you going to get that data? I sit on a
14 committee for the ISO that looks at grid
15 reliability. And we've been greatly challenged in
16 that particular area.

17 The data that the ISO makes available to
18 the public is clearly not adequate to that task.
19 And it's my understanding that individual
20 operators will not release that data, and that the
21 ISO cannot compel them to do so. So I wonder how
22 the CEC is going to handle that.

23 MS. ALLEN: That's a good point. Out of
24 my area of environmental, but I appreciate your
25 point.

1 MR. KRUPP: Yeah, I had one chance, so I
2 wanted to try to address both my questions.

3 MR. TRASK: You've definitely identified
4 a topic that we have given a lot of discussion to
5 so far. We do hope to establish very good working
6 relationships with the ISO to get as much
7 information there as we possibly can. But you're
8 absolutely right, the data on failures and
9 breakdowns is not readily available for each
10 individual plant. And, in fact, that's one of the
11 things that we hope people will comment on,
12 sources of information that we can find about
13 that.

14 We do have some data on national-wide
15 averages given to us by the North American
16 Electric Reliability Council. It may be the only
17 thing we can go on. But we certainly intend to
18 dig as deep as we can to find more data on that
19 and try to come up with real information.

20 But it is definitely a concern.

21 MS. GEORGE: Barbara George. I'm not
22 real clear on where we are on the agenda. Is this
23 the 11:00 to 11:20 Q&A session? Or --

24 MR. TRASK: I don't have an agenda with
25 me, but yes, this is the Q&A session following --

1 MS. GEORGE: So these issues, what
2 methodologies should staff employ and what
3 policies, plans and practices are in place, is
4 that what you're looking for comment son right
5 now?

6 MR. TRASK: Correct, yeah.

7 MS. GEORGE: Okay. Well, I have a
8 number of comments on that. One thing, as far as
9 the role that the plants play in the state's power
10 market, I'm on a committee of the -- several
11 committees of the ISO, also. One in San
12 Francisco; one, the grid planning standards
13 statewide.

14 My organization is an intervenor in the
15 Jefferson-Martin transmission case, also, which is
16 currently in process.

17 One of the things that came up in that
18 case -- well, actually in the -- first of all, in
19 the meetings in San Francisco one of the reasons
20 why they run Hunter's Point Power Plant and
21 consider that it has to be available is something
22 called operations criteria. Which is kind of
23 after you get it through all of the load
24 forecasting and all of the other reasons, then you
25 come down to operations criteria.

1 And it turned out that the criteria was
2 that they had some insulators that built up salt
3 at the substation and they needed to wash those
4 off on a Saturday afternoon. And they cranked up
5 the power plant just to wash those insulators off.
6 And they needed, they said they had to keep that
7 power plant available in order to be able to do
8 that four times a year.

9 PG&E said, hey, we could make those
10 insulators out of a material that doesn't need to
11 be washed off. So, hopefully that will be done.
12 That's just a minor issue.

13 There are so many little little things
14 that keep coming up, you know. It's like you go
15 one thing, you think you're going to solve that.
16 Then, oh, there's another thing. And, oh, there's
17 another thing behind that. That's come up a
18 number of times.

19 The transmission around the area is
20 obviously a big issue in the Jefferson-Martin
21 transmission hearings. The Hunter's Point Power
22 Plant and the Mirant Potrero Power Plant, which
23 are ten blocks away from each other, are both
24 required to be in service. And the odd thing is
25 that even the Jefferson-Martin line and four

1 peaker plants in San Francisco, which would
2 replace all the power that is currently put out by
3 Hunter's Point Power Plant, they say that's not
4 enough to close down that power plant.

5 So, I think you have to look at the
6 whole context of why the ISO says the plant is
7 needed. And you have to look at their methodology
8 for determining future load.

9 One of the things that they do in order
10 to figure out whether it's necessary, you know,
11 what the load might be in the future, is they have
12 a methodology which is different from PG&E. And
13 PG&E and ISO sit in our meetings and argue with
14 each other about why, you know, one works and the
15 other one doesn't. But ISO cranks up the load
16 proportionately on each substation. Which, in the
17 real world, is not what is going to happen.
18 Because you've got development in some place, and
19 some places are built out and they're not going to
20 be increasing all that much.

21 Another thing I don't know what you're
22 looking at as far as alternatives to the power
23 plants, but something that certainly needs to be
24 looked more closely at would be energy efficiency.
25 There is a new day in the energy efficiency

1 proceedings. Women's Energy Matters is also
2 involved in the new energy efficiency proceedings.
3 And we're part of a large group of people who are
4 proposing new models for energy efficiency in
5 California, as a whole.

6 But already, even now, there are a
7 number of new things happening. One is the 20
8 percent of the money is going to non-utility
9 entities which are producing a lot more energy
10 efficiency with the same amount of money.

11 Another thing that's happening is that
12 the utilities are proposing an equal, practically
13 an equal amount of money to the public goods
14 charge, in procurement money, which they're able
15 to put into energy efficiency. That they're
16 saying that they are going to put into energy
17 efficiency.

18 One of the things that we have been
19 saying is why don't they target procurement money
20 as well as public goods money to address
21 transmission constraints. They said they were
22 going to do that with the San Francisco pilot
23 project for energy efficiency, but we found out
24 something very strange. In the pilot project they
25 said they had to do energy efficiency in downtown

1 San Francisco.

2 We learned that there was a transmission
3 line, actually two huge transmission lines, 230 kV
4 lines that go directly to San Francisco
5 Embarcadero substation from Martin; have nothing
6 to do with the power plants. And the PG&E
7 transmission manager said that doing energy
8 efficiency in downtown San Francisco would have no
9 effect on closing Hunter's Point Power Plant; it
10 had no effect on San Francisco reliability; have
11 some effect for the whole Greater Bay Area. But
12 the City, itself, it would not affect because that
13 transmission -- those two lines are bringing power
14 from far away. They're not using that local power
15 for the downtown area.

16 And for a lot of reasons, this has to do
17 with the change-over between the utility
18 management of the grid and the ISO management of
19 the grid, there are two different systems. In the
20 PG&E days you looked at N-2, or G-1/L-1. So that
21 was one line at one generator -- no, this is the
22 ISO overall -- wait a second, let me go back.

23 No, N-2. They were allowed to use N-2,
24 meaning either two power lines or two generators
25 out. PG&E tended to eliminate discussion of those

1 two large power lines by, you know, N-2 they go
2 away. We talk about this older system underneath,
3 which is a network of 115 kV lines.

4 It's difficult to fathom how confusing
5 the reliability question is in San Francisco
6 because of all of these things that have turned up
7 as we dug deeper and deeper into why that power
8 plant does not close.

9 So, I urge you to look at the
10 transmission questions very closely, and look at
11 the energy efficiency as a potential fix. Because
12 what they say is that energy efficiency cannot
13 be -- is not capable of producing -- of replacing
14 a large amount of energy. And they say, oh, well,
15 we only get 7 megawatts of energy efficiency in
16 the whole northern peninsula area in San
17 Francisco.

18 Well, why is that? I mean, they could
19 spend more money there and get a lot more energy
20 efficiency, you know, in the much larger numbers.
21 And, of course, in San Francisco there is also a
22 bond measure that was passed by the voters for
23 energy efficiency and renewable energy in the
24 hundreds of millions of dollars that is just
25 waiting to be used, probably won't happen until

1 the community choice change in the energy
2 production in San Francisco. But that is also
3 coming and that's going to change the whole way
4 power is procured in the community choice cities.
5 So those are other issues that need to be looked
6 at.

7 I don't want to go on and on, I can talk
8 all day.

9 MR. TRASK: Yeah, thank you, Barbara.
10 You've identified a couple of key problems with
11 any study that the Energy Commission does, is that
12 there is a wide range of estimates.

13 For instance, in the briefing paper we
14 point out that there's a pretty wide range of
15 estimates of the amount of plants that could
16 retire, ranging from about 5000 megawatts to as
17 much as 10,000 megawatts in the near future.

18 So, many of the other things you said,
19 perhaps existing transmission could alleviate the
20 need for running some of these plants.

21 So those are the kind of things that
22 we're going to be digging as deep as we can
23 define, and appreciate your comments on that.

24 MS. GEORGE: Let me just add one more
25 thing. The reliability/must run contracts.

1 Currently we have learned that the ISO is changing
2 the designation of RMR contracts in the Greater
3 Bay Area. They used -- a certain number of those
4 contracts were considered necessary to provide
5 power to the Greater Bay Area.

6 We've learned that now they're starting
7 to designate some of the power plants in that area
8 as -- they're still RMR, but their power is
9 directed somewhere else. So that indicates that
10 the power from those plants is being -- the new
11 plants that are coming online is being canceled
12 out. This has the effect of keeping the old
13 plants online because they say, oh, well, we've
14 got the new power plants like Metcalf and the
15 Pittsburg coming in, but then these other plants
16 that used to, have always provided power for the
17 Bay Area, oh, we're not going to use those for the
18 Bay Area anymore.

19 So, you know, you still -- you keep
20 cutting back on the amount of power that
21 supposedly is available, and that has the effect
22 of keeping these power plants open.

23 MR. TRASK: Yeah, as I mentioned early
24 on, one of the things that we will be doing in the
25 study is to identify the potential replacements

1 for any one of these plants, whether or not we
2 know that they will retire or not. And that would
3 include demand side management, efficiency and
4 conservation, as well.

5 We want to rank the relative costs of
6 replacing a given unit with any one of these five,
7 or any other possible replacement.

8 MR. HEMIG: Good morning; my name is Tim
9 Hemig with West Coast Power. I just have a couple
10 comments on the particular environmental question
11 brought up.

12 One is when you're looking at air
13 emissions I suggest that you look at it as a
14 pounds per million Btu or basically an emission
15 concentration level. When we talk about mass
16 emissions and we talk about emissions annually, I
17 think that doesn't really indicate hat your
18 emissions and how they affect air quality; what's
19 coming out of the stack at any one point in time.

20 And I think you'll see that the majority
21 of the -- at least the west coast power facilities
22 have the maximum controls on, and you have very
23 low emission rates coming out of those stacks.
24 And pounds per million Btu is what you use in your
25 table. And I think that that's a good indicator

1 for air quality, rather than the annual emissions.

2 Secondly, on cooling water systems and
3 your evaluation of that, I suggest that you --
4 what you're doing in one respect is actually
5 starting to move into what USEPA is requiring in
6 the phase two cooling water intake structure rule
7 that was just passed in February.

8 Specifically when you're talking about
9 entrainment and impingement and project-specific
10 impacts, and that is a new rule that requires
11 several years of studies and information that I
12 think is going to be well outside of the -- appear
13 that you're planning to do in this report. I
14 think that you won't have the benefit of that
15 information in this report.

16 Also, I think when you're looking at
17 cooling water systems and you're looking at the
18 environmental effects you ought to look at the
19 environmental impacts of alternate cooling systems
20 that would replace those if they weren't being
21 used.

22 What I mean by that is, you know, you're
23 looking at basically the most efficient use
24 cooling system that you can use at a thermal
25 plant. And if you weren't using that you would be

1 using potable water, reclaimed water for cooling.
2 And if are using those, what are the environmental
3 impacts of that. Air quality? To the air
4 quality, as well as to the use of that water.
5 There's other uses of that water that obviously
6 are very important to California.

7 That also avoids visual impacts. And
8 the use of cooling systems also provide the
9 opportunity for desalinization systems at those
10 facilities.

11 So I think when you're looking at the
12 cooling system, you should also look at the
13 benefits that come with cooling water systems,
14 cooling water intake systems.

15 And on top of that if you look at what
16 the reductions that are mandated by USEPA's new
17 phase two requirements, and the reductions to
18 entrainment and impingement, you'll see that that
19 cooling water system actually has a lot of
20 benefits overall to the environment and to energy
21 efficiency and price that I think need to be
22 overall, looking at all those different pieces.

23 Let me think here. I believe that's the
24 extent of --

25 PRESIDING MEMBER GEESMAN: Would you

1 elaborate on which benefits those are?

2 MR. HEMIG: I'm sorry?

3 PRESIDING MEMBER GEESMAN: Would you
4 elaborate on which benefits those are?

5 MR. HEMIG: Yeah, I brought them up.
6 Basically the avoidance of use of potable water
7 would be one. Or reclaimed water that you would
8 use as an alternate cooling system.

9 Dry cooling is another alternate system
10 that has efficiency impacts resulting in more fuel
11 use to get the same number of megawatts. And the
12 air emissions, impacts there. So the benefits
13 from ocean cooling are avoiding those alternate
14 environmental impacts.

15 If you're using potable water,
16 somewhere, that water has to come from somewhere.
17 What are the environmental impacts of using that
18 water, storing it, piping it, et cetera.

19 Visual impacts aren't really
20 environmental, but the visual impacts and the
21 overall efficiency impacts that you get comparing
22 ocean cooling to a dry or wet cooling.

23 And then lastly what I was saying is
24 that overlaying the reductions in entrainment and
25 impingement on the systems, which is mandated by

1 the new federal requirements, and the investments
2 that we're going to see in those cooling water
3 systems to reduce entrainment and impingement,
4 you'll find that the environmental impacts of
5 cooling water systems are dramatically decreased
6 such that they may actually start to offset the
7 alternate impacts you can see using these other
8 sources of cooling.

9 That's my suggestion on that. I
10 believe those should be looked at in the overall
11 context.

12 PRESIDING MEMBER GEESMAN: Is it also
13 possible, though, that the magnitude of required
14 investment in response to the EPA rule could be
15 the tipping point that sends the plant into
16 retirement?

17 MR. HEMIG: Yeah, that's actually a good
18 point. I think it actually fits into the reuse of
19 that cooling system, should the investment be over
20 what an existing plant can handle, then actually
21 that's a great opportunity for a redevelopment.
22 And putting in the new units that would be able to
23 absorb that investment, put in those controls and
24 those reductions, whether they be actual
25 technology or habitat restoration or something, to

1 comply with the rules.

2 We actually might have the best cooling
3 water system, most efficient cooling water system,
4 a redeveloped, modernized facility, as well as a
5 low environmental impact. So I think you get a
6 win/win there.

7 Thank you.

8 COMMISSIONER BOYD: Let me just comment
9 that I appreciate and understand your comments
10 with regard to the context of the study that the
11 staff is seeking input on, methodology-wise,
12 scope-wise, and et cetera. And I would point out
13 that the staff, I think, is pretty much aware of
14 all the issues you brought up, in a different
15 context, though. And that's the context of the
16 power plant siting cases that we are going through
17 at the present time with regard to the number of
18 repowerings taking place, repowerings along the
19 coast, the issues of once-through cooling, and
20 what-have-you.

21 And I know Commissioner Geesman and I,
22 and all Commissioners, sit through these
23 discussions and debates with respect to each and
24 every one of these facilities. The issue we have,
25 and it's been well described by many of the people

1 today, is to step out of the box and look at the
2 big broader systems impacts of things.

3 But that's also the extreme difficult of
4 this whole issue. And the staff is perhaps
5 dragging the entire iceberg out on the table here
6 to look at now, as best they can.

7 But, for instance, you mentioned the new
8 EPA rule, which hits us right in the middle of
9 reviews of a few power plants. And, yes, it will
10 be quite some time before the results of those new
11 requirements are known. And those won't affect
12 the existing siting cases near as much as it
13 affects looking at the future, which is what the
14 staff, indeed, again is trying to do.

15 So, good points. And it underlines the
16 complexity of the issue that we're trying to deal
17 with. And it underlines the need for all the
18 multiple agencies who are involved with this
19 question in California, and the need for them to
20 get together.

21 The earlier question about who's got
22 data is a very relevant issue. I do know that
23 during the electricity crisis that we mined a lot
24 of data about upsets and breakdowns. But it was a
25 horrendous chore. And that data is available.

1 The trouble is, in my mind that data will skew the
2 heck out of reality, or what reality should be.

3 So, yes, there's yet another issue of
4 where we need the help of the people in this room,
5 and a lot of other people, too, to mine the data
6 that we need.

7 But, anyway, just a couple of comments.
8 I could have made a lot more, but this is -- we're
9 trying to scope the issue out. And there are a
10 lot of issues. I'm trying to stay out of the air
11 quality issue. I know that staff is well aware of
12 that. And I won't answer Paul Wuebben's questions
13 just yet.

14 MR. TRASK: Any further questions,
15 comments?

16 MR. WUEBBEN: I just had a few other
17 comments.

18 COMMISSIONER BOYD: Didn't mean to
19 challenge you, Paul.

20 MR. WUEBBEN: No, I appreciate that,
21 Jim. Paul Wuebben, South Coast Air District. I
22 just wanted to make a few comments in the broader
23 context of your air quality assessment because I
24 think this report gives us an important
25 opportunity to take an aggregate view.

1 Since the -- 2001, the beginning,
2 essentially the center of the energy crisis, our
3 agency did permit 16 major power plants. That
4 essentially reconfigured 1526 megawatts to over
5 3900 megawatts. We're now looking at -- and the
6 majority of that has been converted up to combined
7 cycle, so an enhancement of efficiency.

8 So I think that that shows that there is
9 an effective permitting process that there is
10 bringing online efficiency which enhances the gas
11 utilization concerns that you have; and obviously
12 addresses the real world supply issues. But also
13 addresses the air quality concerns.

14 The other aspect is that we do have
15 probably a more functioning, well functioning
16 reclaimed trading credit program certainly than we
17 had during that period because we learned some
18 important lessons. There were games going on, but
19 we've addressed some of that.

20 And then looking forward, as you
21 probably know, looking at two major existing, or
22 two new projects that are going to convert 350
23 megawatts to 1300, which are on your template of
24 possible project for siting cases, I believe. And
25 one that we're holding up just slightly to look at

1 emission reclaimed credits for PM10.

2 So that addresses, I think, the value of
3 looking at PM10, as well as NOx, because that is a
4 criterion that's quite important to us, as well.

5 So, overall I think that it would be
6 important to acknowledge that the permitting
7 system, as it's evolved, has provided California
8 with an important set of tools that is working
9 fairly well, as evidenced by that kind of
10 generation accommodation.

11 MR. TRASK: Thank you, Paul.

12 MR. HICKOK: I'm Randy Hickok; I'm with
13 Duke Energy. I think you may want to reconsider
14 whether peakers have a role in this study or not.
15 You know, given that they're designed to only run
16 occasionally, physically they're designed that
17 way, economically they're not necessarily designed
18 that way. Most of them were built under cost of
19 service ratemaking, so whether they ran or not
20 they had a revenue stream.

21 So, as a practical matter, I don't know
22 if it's an issue because, you know, to the best of
23 my knowledge about every peaker I can think of has
24 a contract for power at the moment. But there may
25 be some that don't. And I know that I've got two

1 peakers that, absent RMR condition to contract, I
2 would have shut down long ago. Without a capacity
3 market and with moderate prices or price gaps on
4 price spikes, you can never repatriate all the
5 capital, all the fixed costs that you need for a
6 peaker in the few days that it dispatches.

7 So, you might want to take a look if
8 there's some critical peakers on the system that
9 you might be overlooking.

10 MR. TRASK: Thank you, Randy. Anybody
11 else? Comments on methodology?

12 MR. KELLY: Steven Kelly with the
13 Independent Energy Producers Association. This
14 gets more to plans and practices, but I'm
15 wondering whether this study will look at
16 procurement practices specifically or the lack of
17 having them.

18 I know we've got a number of policies in
19 place, but the timing for that, in terms of
20 creating the incentives for the repowering of
21 these facilities, and how that plays into what
22 you're looking overall.

23 PRESIDING MEMBER GEESMAN: I think we
24 will hopefully establish a good factual basis by
25 which others can determine the appropriateness of

1 current procurement policies.

2 MR. KELLY: Great. Thank you.

3 MR. TRASK: We have one other person.

4 DR. LIM: Morning. Kenneth Lim with the
5 Bay Area Air Quality Management District in San
6 Francisco.

7 I notice on your list of aging plants
8 that the four principal power plants, existing
9 plants, in the Bay Area are on your list, all four
10 of them. And reflects the age of typically over
11 40 years on these plants.

12 We look forward to working with you on
13 this study and helping in whatever way we can.

14 I want to just point out the area of
15 economics, in general, the economy in general, and
16 specifically the electricity market, itself, as
17 very important issues. I'm sure you'll be
18 studying that in great detail. I just want to
19 bring it to light.

20 The existing fossil fuel generation in
21 the Bay Area, as late as the early 1990s, was
22 approaching 4000 megawatts, about 3800 megawatts,
23 which really reflects only about half of the
24 needed power in the Bay Area on a peak basis.

25 However, with aging and retirement the

1 actual operating capacity now is down to about
2 3000 megawatts. I put some numbers down, not --
3 but perspective, about 3000 megawatts. But with
4 the actual units that are actually operating,
5 that's closer to about 2400 megawatts down from
6 the original 3800. And this trend may continue,
7 although some of these units are not officially
8 retired, more or less on standby for over a year
9 now.

10 But the importance is that working with
11 the Energy Commission, the District has permitted
12 or in the process of permitting over 6000 new
13 megawatts of power plants in the Bay Area. And we
14 have noticed a number of them that have been
15 approved have had their construction interrupted
16 or delayed to the point where it's really
17 uncertain whether many of these plants will be
18 built.

19 And the economics question obviously is
20 if these thousands of megawatts are deferred
21 because of the economy in general, specifically
22 electricity, does that mean that more of these
23 older units will be pulled out of retirement, so
24 to speak, because they've not officially
25 relinquished their operating permits. And that

1 the plans of shutdown in the coming months may
2 actually turn out to be tenuous, at best.

3 Just an issue I thought you're probably
4 considering, but I wanted to highlight that.

5 MR. TRASK: That's a very good point.
6 Thank you, Ken.

7 PRESIDING MEMBER GEESMAN: And I would
8 add in response to Mr. Kelly's earlier comment
9 that does feed back into the procurement policies
10 that various state agencies follow.

11 MR. TRASK: Any other questions or
12 comments about our proposed methodology?

13 MS. THOMAS: Good afternoon -- or
14 morning. I'm Mary Jo Thomas; I'm the Operations
15 Engineer for the California Independent System
16 Operator. And I'll be working with this group in
17 supporting this issue.

18 The ISO is very pleased that the
19 Commission has chose to do this study. We feel
20 it's a very important issue for, especially
21 concerning reliability. We did a study ourselves
22 identified that there's potentially 4000 megawatts
23 of capacity at risk of retiring.

24 This was a much less formal study, so
25 again we're real pleased; we're looking forward to

1 working with you to do a more formal study looking
2 at how these potential retirements will affect
3 reliability.

4 And especially we're pleased that you're
5 looking at when and where any replacement of
6 potential retirements will go in place.

7 The ISO, in working with the Commission,
8 we can provide you data. We just need to go
9 through the proper procedures in making sure that
10 there's no market sensitive data that's submitted
11 or out into the report.

12 So we'll look forward to working with
13 you and providing any data that we can. Okay?

14 PRESIDING MEMBER GEESMAN: Mary Jo,
15 while you're up there at the stand, I wanted to
16 ask you a question. Our staff has defined the
17 period of our study as going through 2008. And I
18 wanted to get a sense to whether you felt that
19 that was the appropriate timeframe that we ought
20 to be looking at? Should it be a little shorter;
21 should it be a little longer?

22 MS. THOMAS: I think that going forward,
23 assuming that this study is going to be
24 continuous, that that probably would be the
25 appropriate amount of time, given that that would

1 cover -- the results of the study this year would
2 cover up through 2008. So any loss of generation
3 through 2008, there would be plenty of time for
4 replacement through either new generation or new
5 transmission.

6 PRESIDING MEMBER GEESMAN: Thank you.

7 MR. LEE: Vitaly Lee with AES. I just
8 wanted to compliment you on your methodology. I
9 just wanted to add one point.

10 When you look at the efficiency of the
11 aging units it is also important to look at the
12 dispatch pattern as to how the units are run. If
13 you are looking at the unit that is 480 megawatts
14 capacity, and it is part, let's say, at a minimum
15 load of 70 megawatts for a long, long time through
16 the ISO must offer/denial process. The heat rate
17 is going to be extremely different at the full
18 load. So you need to factor that into your
19 methodology.

20 MR. TRASK: Thanks, Vitaly. Kevin
21 Kennedy has a quick announcement here.

22 MR. KENNEDY: It's not exactly an
23 announcement but something that I forgot to do at
24 the beginning during my introductory comments, and
25 I was reminded of.

1 It would be actually very useful for, I
2 think, everyone here to get a sense of who's
3 represented. And there's too many people here to
4 try to do any sort of round-robin saying who
5 you're with. But at least I was hoping that we
6 could get, you know, a sort of general sense of
7 what types of organizations are present and
8 represented.

9 So if you could raise your hands for the
10 appropriate groups? Energy Commission Staff, and
11 I know we have a lot of folks here. Always
12 slightly embarrassing to actually do that one.
13 But we pack the room sometimes.

14 Folks from other agencies, government
15 agencies? And I would go ahead and include the
16 ISO in that, though it's sort of not quite the
17 case. Otherwise you get your own special
18 category. I guess we can do that, as well.

19 COMMISSIONER BOYD: I refer to them as a
20 crown corporation, myself.

21 (Laughter.)

22 MR. KENNEDY: Folks from industry?
23 Okay. And folks from environmental community
24 groups. Okay. So I welcome everybody.

25 One thing that we definitely would be

1 interested in hearing from the folks who are here,
2 if you're looking around and seeing any of your
3 colleagues that we seem to have missed. I know
4 that there were people who wanted to attend today,
5 but had other things that they were doing that
6 will probably be attending future meetings.

7 But we're certainly interested in, you
8 know, hearing if there's anybody we should be
9 doing additional outreach to.

10 MR. TRASK: With that I'd like to just
11 move on to another little short presentation of
12 mine about the data information collection. I
13 already talked quite a bit and don't feel any need
14 to go into too much depth. But obviously the
15 second there, dispatch criteria and bidding
16 process, that's something that we very clearly
17 need to understand. All the factors that go into
18 when these plants will be called up and for how
19 long.

20 Kevin's right. We had actually called
21 for a break here between these two presentations.
22 And I think we'll go ahead and do that. Let's
23 break for about 15 minutes and come back at 11:30.

24 (Brief recess.)

25 MR. TRASK: Okay, we'll get going. I'd

1 just like to pause for a moment here. Following
2 the completion of the staff presentations we're
3 going to open up to take some presentations from a
4 couple other parties. And then take more general
5 comments and oral comments.

6 If you would like to speak during that
7 period we're asking that you fill out one of the
8 blue cards that are out on the tables there. And
9 you can either give it to myself or to
10 Commissioner Geesman. And that way we'll know who
11 to call upon and in which order.

12 So, getting back to our presentations
13 here. We talked a little bit about data
14 collection. Again, we'll be collecting a lot of
15 data on historical operating profiles of these
16 plants, concentrating, again, in 2001 when we had
17 very high capacity factors during the power
18 emergency. And then in 2003, which were a more
19 typical generation profile from these power
20 plants.

21 Very important is for all of us to know,
22 and when I say all of us I mean all the
23 participants, as well as staff, the dispatch
24 criteria and the bidding process by which these
25 power plants are selected by the ISO and any other

1 control area operator that might be involved. And
2 there we're thinking primarily of the municipal
3 utilities.

4 We think that's very crucial just to
5 understand how these plants are called upon and
6 when and how long they would run.

7 Again, the relative contract provisions
8 very important. Those would be the reliability
9 RMR contracts that ISO holds with the generators;
10 as well as any other contracts like with the
11 Department of Water Resources.

12 And, again, we wanted to look at any
13 project, plan or policy that reflects retirement
14 as well as continued operation. And, of course,
15 we would be seeking comment from you all about
16 those kind of things. Virtually any little thing
17 that could affect both them sticking around as
18 well as retiring.

19 And with that I'd like to open up just
20 one more time about our data informational needs,
21 and basically hear from you if we're going down
22 the right path, and who else we should be talking
23 with.

24 Comments? Questions? Always good to
25 have a break because then people are happier.

1 All right, well, with that I'd like to
2 turn it back over to Kevin Kennedy to wrap up our
3 presentation.

4 MR. KENNEDY: And at this point we're
5 sort of pretty much opening things up to, you
6 know, now that you've had a chance to hear our
7 overall approach, what plants we're thinking of
8 looking at, what sort of data we're talking about,
9 sort of generally a question to the collective
10 group. Have we adequately captured the issues
11 that are associated with aging plants that we
12 should be focusing on? Are there issues that
13 we're missing? We've heard a bit of some things
14 that people think that we're maybe not quite
15 focusing on adequately. Are there some issues
16 that we are picking up that we shouldn't be?

17 And also some thoughts that folks may
18 have on what the next steps in developing some
19 sort of collaborative process might be.

20 One of the things that we would
21 certainly be hoping to do in terms of being able
22 to gather some of the data that would be useful on
23 this is getting input from the plant owners on
24 what sort of information would be available.
25 Where we might be able to go to get information

1 we'll be able to share with the larger group,
2 include in the reports.

3 I know that there are a lot of
4 confidentiality issues around the particular types
5 of data that would be very useful to be looking at
6 in this.

7 So, you know, either sort of general
8 questions or comments at this point on the overall
9 staff presentation. And also a general reminder
10 that we are looking, in addition, for the oral
11 comments here today; encourage people to send in
12 written comments, as well. May give people, once
13 you've had a chance to think a bit more about what
14 was said here by staff, by other folks who have
15 been participating, you may have additional
16 thoughts or want to sort of spell out some points
17 in more detail than you had a chance to today.

18 So, with that, I'd like to open the
19 floor.

20 We do have at least one or two
21 presentations by other groups. And there will be
22 an opportunity to go more broadly with sort of
23 general comments after those presentations.

24 Matt, I'm not quite clear where we are
25 in terms of getting things cued up on the other

1 presentations. Okay. Before we get to other
2 presentations, any comments from the Commissioners
3 or anyone else here?

4 I guess we can move on to other
5 presentations then.

6 MR. TRASK: Our first presenter would be
7 Greg Blue with West Coast Power.

8 MR. BLUE: Good morning; my name is Greg
9 Blue. I'm with Dynegy. I'm here today on behalf
10 of West Coast Power. West Coast Power is a joint
11 venture between Dynegy and NRG Energy. We own and
12 operate -- let's see if this will work. Here's
13 our fleet summary.

14 The El Segundo units 3 and 4. That's
15 important because it used to be units 1 and 2.
16 Retired at the beginning of 2003. The Long Beach
17 unit; the Encina units; and then what we call the
18 Cabrillo 2 units. Those are peaker plants located
19 down in San Diego County area. All of our plants
20 are in SP-15.

21 Notice the date of installation there.
22 We do have one that was installed in 1924 at our
23 Long Beach facility. It's out of service, but
24 it's some old-looking machinery still in place.

25 I guess before I start I want to say a

1 couple of comments. I think that the staff and
2 the CEC are heading in the right direction. We've
3 been advocating for someone in state government or
4 someone, some regulator or policymaker to actually
5 start looking at this issue. I'm going to talk a
6 little bit more about that.

7 I'll say this, that we are willing --
8 our doors are open, we're willing to cooperate.
9 The issue on confidentiality on material that's
10 becoming less and less than it was a couple years
11 ago. So I think you'll be able to gather a lot
12 more information, at least from West Coast Power.
13 I can't speak for anybody else.

14 So, El Segundo, Long Beach and Encina
15 are included in the study.

16 As far as the aging power plant study
17 and everything the CEC is doing, some of the
18 things I'm going to talk about in just a few
19 minutes have been commented on earlier. There's
20 also, I understand, other forums where a lot of
21 these issues are being discussed. However,
22 they're still important. Also I'm going to bring
23 up a couple of new issues that need to be looked
24 at, as we go forward.

25 Also, one other comment on the study,

1 itself. I'm all for studies and all, but our main
2 concern is '05 through '08. There's this interim
3 period which we think has the highest -- that time
4 period is the most critical that we need to be
5 looking at.

6 Once again, I hope we're around at the
7 end of the study. Depending on how long the study
8 goes. One of the things that we see are critical
9 out there is until the next wave of new generation
10 is built is now are we going to maintain the
11 plants that are needed for reliability. How are
12 we going to incentivize redevelopment at the
13 existing sites, which we think has tremendous
14 value for the State of California.

15 Some of our concerns regarding the power
16 plant study is, of course, issues associated with
17 a capacity market. We think the study should
18 examine what forms of capacity markets and what
19 levels of capacity compensation might be required
20 to retain older generation that is identified as
21 needed.

22 Resource adequacy requirements. We
23 think the study should examine how having mandated
24 reserve procurement levels will incent existing
25 power plants to remain in the market to supply an

1 intermediate, peaking and reserve requirements.
2 Most of these older plants that are going to
3 remain online are pretty much -- you know, I saw
4 the slide earlier showing that certain days, I
5 guess one of the things I would have asked about
6 some of the slides earlier is if you look at the
7 peak days on the grid, there's a high likelihood
8 on the peak days you needed some of these older
9 plants.

10 And basically these plants are the
11 insurance policy for the State of California.
12 Insurance against blackouts; insurance against
13 local transmission congestion. And we need to
14 figure out how and who is going to pay the policy
15 on the insurance premium because we don't want our
16 policy to lapse here in California.

17 Deliverability standards. We think the
18 study should examine if the standards for energy
19 deliverability to load are needed to alleviate
20 congestion and increased congestion management
21 costs to consumers.

22 Grid reliability. We think that the
23 study should identify the aging plants that have
24 unique power deliverability and grid reliability
25 characteristics. We think the studies looking at

1 this, and from what we've heard so far, we approve
2 of.

3 Redevelopment of new generation. We
4 think the study should endorse redevelopment of
5 new generation at existing inload pocket sites as
6 a good public policy. We believe there should be
7 a preference for redevelopment of existing sites
8 that produce these benefits.

9 Also in the last slide, as time is of
10 the essence, once again, as I stated earlier,
11 we're looking at some real deadlines, at least
12 West Coast Power is. We spoke at the last, I
13 guess the 2003 IEPR process six months ago, okay.
14 Six months ago. It's almost six months, five
15 months and three weeks. But approximately six
16 months ago.

17 Haven't seen a lot of progress since
18 then, but what we said at the time was existing
19 generation will play a critical role on the
20 viability of existing generation, requires
21 capacity contracts, more capacity markets.

22 We warned of 10,590 megawatts are at
23 risk for premature economic retirement due to
24 being uncommitted beginning 2005. And I'm going
25 to show a couple of the -- two of the brief slides

1 that I presented before because I think it's
2 important.

3 We also said that existing sites are
4 extremely valuable due to the location of the load
5 pockets. And that redevelopment of new generation
6 on existing sites should become a priority for
7 California.

8 Now, this next slide was how the --
9 we've heard the 4000 megawatts from the ISO.
10 We've heard the 7000 from Dianne Feinstein. And
11 we've heard the 10,000 megawatts. I'll take
12 somewhat credit for throwing that number out
13 there. But what we did was, now presenting this,
14 this has already been presented, it's on the
15 record. But I think it's important to talk about
16 because we looked at just the world of the
17 divested plants.

18 And basically after you took out RMR and
19 DWR contracts, beginning in '05 and beyond, we
20 said that 10,590 megawatts were at risk for
21 premature economic retirement.

22 I guess there's good news and bad news.
23 The good news is that number, at-risk number is
24 lower now. The bad news is it's been moved over
25 to the retired or mothballed category, since last

1 October. I'll talk about that in a minute.

2 And this is the CEC supply/demand
3 balance, of which we just layered on what would
4 happen if all that at-risk capacity were closed at
5 one time. That's not going to happen, but this
6 just gives you the magnitude of the effect.

7 So what do we have today? What is our
8 current situation in California? Right now, since
9 last October we've had 1200 megawatts have been
10 retired. Another 600 megawatts have been reported
11 as potential shutdowns this year. I know there's
12 500 or probably more megawatts next year that are
13 going to start coming off.

14 There's no resource adequacy
15 requirements. There's no capacity markets.
16 There's no deliverability standards. Load is
17 increasing in neighboring states. Utilities have
18 no incentive to contract past the third quarter of
19 '05. No transitional power contracts available.
20 And RMR costs are rising due to the higher own
21 operating cost and the efficiency declines of the
22 older units.

23 So that's why we think it's really
24 critical that somewhere, and we're giving the same
25 message, by the way, to the -- we'll be talking to

1 the ISO, to the PUC, to the CEC, to the
2 Legislature. And it won't be any different
3 message that we're giving them, as well.

4 Some obstacles to preserving existing
5 generation and sites. The PUC's January 22nd
6 final procurement order, and this is really not in
7 the CEC's, you know, domain, but I'm just giving
8 some facts for some of the people, as we see them.

9 The PUC final order deferred meaningful
10 resource adequacy targets till January 2008.
11 Defers an issue of deliverability standards. Does
12 not provide how resource adequacy will be
13 implemented and enforced. There are workshops
14 ongoing on that. Once again, another process in
15 California. Processes in California take twice as
16 long as any other state in the country for some
17 reason.

18 Other obstacles. The FERC must offer
19 requirements, at least our opinion. The ISO's
20 interpretation of payments under those will not
21 sustain existing generation. The ISO is further
22 proposing to reduce that compensation effective
23 within NDO2 phase 1B implementation.

24 We see the utilities unwilling to
25 contract beyond 2005. And we know that, for a

1 fact, because we met with all the utilities. We
2 think that this issue may require legislation.
3 And I know that there is language in bills down
4 the street on some of these repowering type
5 issues.

6 Just a couple of other things. You
7 heard Tim Hemig, our Director of Environmental
8 Affairs for NRG on behalf of West Coast Power,
9 talk about some of the environmental issues. But
10 I think as you look at this and you kind of look
11 at this and look at it's an issue of how a power
12 plant fits in its neighborhood, as well, and the
13 local environment around it.

14 We have invested more than \$70 million
15 in the emission control that significantly reduced
16 air pollution. I think if you look on that chart
17 earlier that showed the emissions, I think our
18 plants would be right above the Morro Bay plants,
19 if you were to put us on that line.

20 We've had -- environmental stewardship
21 has been recognized by the National Oceanic and
22 Atmospheric Administration, San Diego Industrial
23 Environmental Association and the City of El
24 Segundo.

25 And our plant in Encina, it's in

1 Carlsbad, California, there is Aqua Hedionda
2 Lagoon, which we own the lagoon. That's where our
3 cooling water comes in, the intake water for our
4 plant comes in through that lagoon. There's three
5 lagoons basically. On that lagoon there is a
6 marine research facility. There's a aquaculture
7 farm. There's a sea bass hatchery. All of which
8 we lease at dollar-a-year-type rates to these
9 organizations.

10 There's also seawater desalination
11 projects, as Tim mentioned earlier. There's one
12 at the Encina plant in Carlsbad proposed to be the
13 largest in the western U.S., 50 million gallons a
14 day, that is integral to be a part of -- it takes
15 the water, once the water as it comes out of the
16 power plant, and basically runs that water through
17 the desal plant.

18 Those are -- the reason those are being
19 proposed next to power plants is because they are
20 high users of electricity. And the proposal is to
21 interconnect directly with those facilities. And,
22 you know, as part of -- desalination projects, on
23 their own, are uneconomic. And the way you make
24 those economic is there is, you know, that they
25 acquire electricity at wholesale prices, perhaps,

1 or wholesale-like prices versus retail-like
2 prices. As well as there are some subsidies that
3 are coming from the Metropolitan Water District of
4 which our projects have qualified for some of
5 those. And hopefully we'll have a power plant
6 there to build these projects.

7 Because water is another big issue. I
8 don't know if the CEC deals with water issues, but
9 it's also another huge issue in California. And
10 we're hoping to get some synergies there and, you
11 know, solving two public policy issues in
12 California with one facility.

13 Another issue that really didn't see
14 much of on the proposed study, however we're
15 getting quite familiar with this regarding
16 economic impact of the existing generation on the
17 city budgets. That where we're located,
18 particularly property tax. There's utility users
19 taxes in some of the locations where based on the
20 amount of gas you use. There's redevelopment zone
21 fees.

22 And in Carlsbad they've created a
23 redevelopment zone around our power plant, so when
24 and if we do something and repower that site, that
25 they are going to gain some economic benefits.

1 And some of the fees will be paid directly to the
2 city versus going through the state and then
3 filtered back.

4 There's vendors sales tax with all the
5 vendors that we use at the power plants. And just
6 as an example, we're getting calls from cities
7 where we're located. They're asking us, why are
8 you running, why are you not running. Because the
9 budgets, the utility users tax portion of their
10 budget is such a huge part of their budgets that
11 they're really getting very interested in this
12 whole issue of how we maintain these power plants.
13 Because it's -- especially with the state budget
14 situation, there's less for the cities to have.
15 And so therefore the cities are getting very
16 concerned about their revenue flows.

17 Getting back to the lagoons again, we
18 have an inner lagoon which we lease to the City of
19 Carlsbad for \$1 a year. It's used for public use.
20 Also the YMCA boating program is there.

21 We also do maintenance dredging. This
22 is all, of course, out of our own costs. We have
23 to dredge the lagoon for us to keep -- it
24 basically keeps the lagoon open and does allow us
25 to get our cooling water. But there are benefits

1 of some of that dredging that we have to do,
2 creates some habitat for some special status
3 species of birds and animals. The sand that we do
4 dredge is deposited back on the local beaches for
5 sand replenishment.

6 So, I guess, in closing, I would say
7 that this is a very -- the study is very
8 important. We think that getting this into the
9 public policy and getting support by the CEC on
10 some of these issues that they may not have direct
11 control on, but if they support the idea we would
12 like to see some of this in the study. If they
13 don't support it, let's see it, as well. It's
14 time that we resolved some of these issues.

15 We're not opposed to new generation. In
16 fact, we would like to build new generation on our
17 sites. We think there's some value there.
18 However, if we're left without power contracts or
19 without a capacity market, we're going to be hard
20 pressed to maintain those facilities. And I know
21 our shareholders, when we have a stranded cost
22 we're instructed to minimize that as soon as
23 possible, and not keep it around.

24 But we do want to be part of the longer
25 solution. I want to continue working in

1 California. So we're hoping that we get some
2 positive policy out of this so we can all move
3 forward, and determine which of these plants are
4 really needed and how we can get some support for
5 those plants.

6 Thank you.

7 PRESIDING MEMBER GEESMAN: Greg, would
8 you elaborate a bit on your thoughts on a
9 deliverability standard?

10 MR. BLUE: As a matter of fact there's a
11 meeting tomorrow at the ISO. We got a guy here --
12 really, the issue for us is when you analyze
13 different projects you need to look at two things,
14 in my opinion. One, what is the total cost to
15 deliver to the load. There are new plants that
16 are being proposed that require substantial
17 transmission upgrades, so there's a cost issue
18 there.

19 There's also an issue of can you get
20 that load to -- can you get that generation to the
21 load on the peak day. We would question imports
22 coming in. There are things that happen outside
23 of our control in other control areas which could
24 limit that. You know, how much does that count as
25 towards your reserve levels.

1 There's issues of if a new plant comes
2 online, if you build a new plant and it comes
3 online, and it causes congestion, what does that
4 mean. You know, so those types of issues.

5 I think we don't have a concrete
6 proposal yet. I know that there are some
7 proposals that are being developed in the resource
8 adequacy workshops. The ISO has got a proposal
9 that they're working on. I think what we see so
10 far of the ISO's proposals kind of looks like the
11 direction we need to be heading in. And perhaps
12 they could -- I don't know if you want to hear
13 more from them, they're here, they can talk about
14 that.

15 But we think that's critical when you're
16 examining are some of these plants needed. And
17 maybe they're only needed for a transitional time
18 period. That would be good to know, as well.

19 So.

20 PRESIDING MEMBER GEESMAN: When you
21 spoke in terms of the value of some of these
22 plants to particular load pockets, is there any
23 better way to identify where those load pockets
24 are than the RMR analysis that the ISO goes
25 through?

1 Should we be looking to that
2 methodology, or attempting to --

3 MR. BLUE: I'm not intimately familiar
4 with how that methodology works to discuss it.
5 However, I think the ISO needs to be intimately
6 involved in this whole deliverability issue, as
7 far as defining the load pockets; as far as the
8 existing sites, do they prevent local transmission
9 congestion, you know. Do we need -- the ISO is in
10 my opinion, and we're going to tell them tomorrow
11 at their board meeting, which they're getting a
12 preview here. I'm going to speak at the board
13 tomorrow. You're getting a preview, as well.

14 That we think the ISO should be telling
15 us which plants do you need. Perhaps in
16 conjunction with your study, perhaps jointly with
17 the CEC, we need to be told which plants do you
18 think are needed. And which plants you don't
19 think are needed. I think that's important to our
20 industry, at least it is to West Coast Power.

21 PRESIDING MEMBER GEESMAN: As you've
22 seen an accelerated pace of retirements of other
23 plants, are your plants operating more?

24 MR. BLUE: I don't know that answer. I
25 don't think so. I just don't know the answer, to

1 be honest with you. I know that -- well, I'll
2 just give you an example of deliverability, but it
3 gets to the point of do we operate more.

4 When the fires happened in San Diego
5 last fall they had to shut down for a day or two
6 the SWPL and the southwest power link line into
7 San Diego. And to prevent the blackouts they
8 needed generation in the load to come online, in
9 the load pockets. And all of our units responded.
10 We all came up, we pretty much max output for a
11 short period of time, a day or so. And so that
12 proved to us, at least our site currently is
13 needed.

14 And I understand there's new generation
15 eventually going to be down there. But I'm really
16 looking at '05, you know, starting next year we
17 think this is going to be real critical.

18 All of our plants are under DWR
19 contract, the entire output of our plants. That
20 contract expires at the end of this year. There
21 aren't any other contracts out there to keep us
22 around at this point. And, you know, we're going
23 to have to make some real decisions.

24 PRESIDING MEMBER GEESMAN: And could you
25 further describe the status of the desalination

1 proposal in El Segundo?

2 MR. BLUE: The El Segundo project, to my
3 understanding, is a -- both at El Segundo and
4 Encina at Carlsbad, they're both right now pilot
5 projects. And so, Tim, do you have any other
6 further update on that? I mean the proposals are
7 for an online -- right now what they're doing is
8 they're looking at, they've got little pilot
9 projects set up where they take the water in.
10 They're doing all the testing. They're making
11 sure that the process works; that it doesn't
12 damage any of the marine life around there.

13 They've got some tanks there where
14 they're running the output water back in. So
15 there's a lot of testing going on. I know the one
16 in Carlsbad is '07 projected online date type of a
17 thing. I'm not sure in El Segundo what the online
18 date. You want to talk about that?

19 PRESIDING MEMBER GEESMAN: If you would.

20 MR. BLUE: Yeah.

21 MR. HEMIG: Let me just add -- Tim Hemig
22 with West Coast Power -- just add that El Segundo
23 is just a pilot plant, and West Basin is the
24 project proponent. And they are still evaluating
25 location of what they call a full-scale site. So

1 there's really no defined project there besides
2 the pilot only.

3 PRESIDING MEMBER GEESMAN: Has there
4 been a developer selected?

5 MR. HEMIG: Yes, actually the West Basin
6 Municipal Water District, they are the developer.
7 I think they're planning on it being their
8 project.

9 PRESIDING MEMBER GEESMAN: Okay. How
10 about a private vendor?

11 MR. HEMIG: Beyond that, that is, you
12 know, their planning only at this point that I
13 know about.

14 PRESIDING MEMBER GEESMAN: Okay.

15 MR. HEMIG: There's a meeting tomorrow
16 actually, I'm talking with them. But I don't have
17 a lot to tell you today.

18 PRESIDING MEMBER GEESMAN: Okay.
19 Thanks.

20 MR. TRASK: I should add that, yes, we
21 are aware of, I think it's somewhere between 11
22 and 13 proposed desalination projects that might
23 affect some of these units.

24 PRESIDING MEMBER GEESMAN: The L.A.
25 Times says 20.

1 MR. TRASK: They're liars.

2 PRESIDING MEMBER GEESMAN: It's kind of
3 like the --

4 (Laughter.)

5 PRESIDING MEMBER GEESMAN: -- the 26
6 energy agencies in state government. We're still
7 searching for them.

8 MR. TRASK: Our next presenter is Matt
9 Greek with Reliant Energy.

10 One quick thing. For listeners
11 listening in on the web we weren't able to get
12 these two presentations on the web before the
13 meeting. We'll get them posted later, though.

14 MR. GREEK: Thanks, Matt. I have just a
15 few brief comments, and I'll talk about the slide
16 in a minute.

17 My name's Matt Greek. I'm the Vice
18 President of Gas and Oil Operations for Reliant
19 Resources. I oversee about 14,000 megawatts of
20 gas- and oil-fired, and a small percentage of
21 renewable, generation across the United States.
22 Of that 14,000 about half of that is new gas
23 turbine based technology, simple cycle peaking
24 units or combined cycle units.

25 And about half of that is more

1 conventional steam capacity. The kinds of units
2 that I think, for the most part, we're talking
3 about today. Included in that are not just
4 conventional steam, but also some older generation
5 gas turbines and combined cycle facilities.

6 Really the point in coming to talk today
7 was to try to address what I think are some of the
8 misconceptions that I hear about this class of
9 units. And I thought we'd just talk for a minute
10 about kind of my experience with these units and
11 units of a newer design.

12 The issues that I thought I'd touch on
13 are reliability, emissions and efficiency.
14 Talking first about reliability. There are really
15 two kind of factors that impact reliability of a
16 generating unit. One is the engineering design
17 that goes into the generating unit. The other is
18 really the execution around the operations and
19 maintenance of that facility.

20 To the issue of engineering I think you
21 will find, if you have some familiarity with sort
22 of new technology and some of the older
23 technology, that the new technology tends to be
24 more complex than the older technology. It tends
25 to have more links in the availability chain, if

1 you will. Tend to be more things that can cause
2 you reliability issues. That can be offset
3 somewhat by the fact that the hardware's fairly
4 new, and it's ready to run pretty much when it
5 comes commercial.

6 Older plants tend to be more simplistic,
7 at least the ones that Reliant owns here in
8 California. And I should tell you we have really
9 five facilities here in California. Four are
10 predominately conventional steam; a couple
11 combined cycle units at the Coolwater facility.
12 And we had three simple cycle GTs. We now have
13 two. One at the Mandalay facility in Oxnard,
14 California. And another one at Elwood, which is
15 up near Santa Barbara.

16 In my estimation we've had a fair amount
17 of experience over the last four years with the
18 new combined cycle and simple cycle gas turbine
19 technology. But we haven't found it to be
20 structurally more reliable than the older units
21 that we're talking about here today, to Reliant's
22 portfolio.

23 Certainly there are challenges with both
24 technologies. But in my view, the potential for
25 running these units reliably is really around the

1 execution of our operations and maintenance plans.
2 And is not predicated on any particular
3 technology. That is to say that you're not going
4 to buy reliability simply by replacing these
5 plants. If you want a higher standard of
6 reliability you can achieve that with the plants
7 that we have here in California, just as you can
8 achieve that with the new design cycle technology
9 that's out there today.

10 The other two issues, and they kind of
11 go to the slide that I've got up here, the
12 emissions and efficiency issue. One of these,
13 efficiency issue, is a structural difference
14 between the new technology and the existing
15 capacity.

16 There is a decided efficiency advantage
17 in a combined cycle facility of new technology
18 that we can't achieve with most of the units that
19 we have in our existing California portfolio
20 today.

21 From an emissions standpoint that's not
22 true. From an emissions standpoint we can achieve
23 the same levels of performance with the existing
24 capacity that we have as we can with new design.
25 And in some cases you would need to make some

1 additional investment modification. In several
2 cases, most cases here, our plants have already
3 made those investments and we already realized
4 that benefit.

5 So really kind of the overall point of
6 the comments is to suggest to you that the aging
7 plants that we're talking about today,
8 particularly those that Reliant has, have a long-
9 term place in the market. Not just a place in the
10 next three, four years. But they have a place in
11 that market and can be a vital part of the
12 electricity market here in California. And at the
13 same time can meet the issues that we've talked
14 about here today both from a reliability
15 perspective and an emissions perspective.

16 But the chart, just to talk about it
17 real quick, the two things that are on here. One
18 is NOx emission rate comparison, pounds per
19 megawatt hour. And I think somebody asked for
20 that earlier. It shows the RRI plants. It also
21 shows a 7FA simple cycle gas turbine with SCR.
22 And this would be considered a peaking plant. And
23 it also shows a frame F combined cycle gas turbine
24 with SCR. This would typically be considered more
25 of a baseload facility.

1 As you can see from the slide for the
2 folks on the web, the RRI plants are about half of
3 the emission rate of a simple cycle, new
4 technology simple cycle gas turbine. And a little
5 more than -- or a little less than twice the
6 combined cycle.

7 If you go back to some of the slides I
8 think were presented earlier by the CEC Staff,
9 they suggested the same thing. That if you're
10 going to look at new technology peaking capacity
11 you would tend to favor existing power plants to
12 serve that load over new generation technology
13 from an emissions standpoint, NOx emission
14 standpoint.

15 The heat rate comparison is the lower
16 graph. This really gets to the efficiency
17 question. It shows the RRI plants at about 10,700
18 Btu per kilowatt hour. The new technology peaking
19 capacity at about 10,800. And the new combined
20 cycle capacity at about 7000 heat rate.

21 So you can see the structural advantage
22 that the combined cycle capacity has. But you can
23 also see that these plants compare pretty
24 favorably with the peaking alternatives that you
25 have relative to the new technology.

1 So, again, if you're looking to serve a
2 capacity factor that's something off of baseload,
3 these plants have not only a role to play, but
4 have a competitive advantage against the new
5 technology. And we would hope that that would be
6 recognized and be part of what we see going
7 forward.

8 Those are my comments. I appreciate the
9 opportunity to talk. We're certainly looking
10 forward to being supportive of the process. And
11 to the question that was raised about data, I
12 think from Reliant's perspective we can provide
13 the data that's needed in the formats it's
14 required. I would suggest that's probably the
15 best way to get that data, even though there are
16 databased and other ways to try to bring that in.
17 It would seem, at least from our perspective, that
18 simply directly supplying that to you would be the
19 best way to get that information.

20 So, thank you very much.

21 PRESIDING MEMBER GEESMAN: Matt, you put
22 out quite a bit of capacity for bid last fall, I
23 think, to auction. Were those at the Etiwanda and
24 Mandalay units?

25 MR. GREEK: The capacity that was

1 offered last fall was essentially the Etiwanda 3
2 and 4 units, which are each 320 megawatt units.
3 The Mandalay 3 simple cycle gas turbine was about
4 115 megawatts capacity. And the Elwood simple
5 cycle gas turbine, which is about 56 megawatts
6 capacity. And in, then, about 800 megawatts that
7 we put out at auction.

8 And for those who aren't familiar with
9 the auction essentially what we did was we offered
10 that capacity at cost on a one-year contract. I
11 think really the only limit that we put on that is
12 you had to be a load-serving entity to bid. You
13 had to be an end user to bid on the capacity. And
14 we did not, through that process, receive any bids
15 for that capacity.

16 Our response to that was to mothball
17 that capacity at least until this September when
18 it will be offered again to the market; same basic
19 group of entities. I think about 38 entities we
20 offered it to. And we'll see if there's an
21 interest at that time and pick that up.

22 PRESIDING MEMBER GEESMAN: Now, in light
23 of your belief that these aging plants really do
24 serve some value that should be recognized in our
25 market, what thoughts do you have as to what the

1 problems were last fall that would suggest that
2 the market didn't recognize any value?

3 MR. GREEK: It's hard for me, as an
4 operator, really looking into the market and
5 understand why things sort of occur the way they
6 occur. I wouldn't want to try to speculate too
7 heavily. I think we put the capacity out there at
8 what I think was a very advantaged price.

9 We have certainly seen, from my
10 perspective we have seen capacity picked up by end
11 users since that time at substantially higher
12 prices. Not clear from that experience why that
13 is. But certainly we've seen that.

14 PRESIDING MEMBER GEESMAN: Then you're
15 going to give it another go this fall?

16 MR. GREEK: Yes. Actually we've agreed
17 that we'll offer it this fall. Whether it is
18 picked up or not we'll offer it again in September
19 of 2005.

20 PRESIDING MEMBER GEESMAN: Okay, thanks.

21 MR. GREEK: Thank you.

22 MR. TRASK: And with that, that closes
23 the staff portion of the day. And we'd like to
24 turn over control of the meeting to Commissioner
25 Geesman.

1 PRESIDING MEMBER GEESMAN: We've got a
2 couple of blue cards from people that I think
3 still want to address this. Vitaly Lee.

4 MR. LEE: Commissioner Geesman, I
5 actually asked him to take me off the list because
6 a lot of issues have been addressed.

7 PRESIDING MEMBER GEESMAN: Okay. Very
8 well. Mary Jo, did you have anything else that
9 you wanted to say?

10 MS. THOMAS: No, but I think Phil
11 Pettingill would like to address deliverability.

12 PRESIDING MEMBER GEESMAN: Okay. Phil.

13 MR. PETTINGILL: Phil Pettingill with
14 the ISO. And, Commissioner Geesman, you were
15 asking about deliverability so I thought I would
16 just give you a brief update about where we are.

17 The topic of deliverability is an
18 integral portion of what's going on before the PUC
19 in the procurement proceeding. It principally
20 comes about in regards to how are we going to
21 count resources. So, once we understand what a
22 load serving entity's load obligation is, the
23 issue then becomes what resources can qualify for
24 meeting that obligation. And deliverability
25 becomes really a limitation factor on particular

1 resources.

2 With that in mind, then, what's
3 happened, as Mr. Blue was talking about, is part
4 of the PUC workshops have identified that we need
5 to address this now upfront as part of some of the
6 preliminary implementation details subject to the
7 decision that they gave us in January. And the
8 ISO was asked to take the lead, at least make the
9 initial straw proposal on what does deliverability
10 look like to us.

11 Let me share with you that we have put
12 together a proposal. It's now out. We served the
13 whole service list for the whole procurement
14 proceeding so it should be broadly available. We
15 are going to be holding an initial workshop
16 tomorrow with the folks that wanted to be
17 involved.

18 What I've asked is that that workshop
19 primarily focus on the technical elements of
20 deliverability. Let's first of all understand
21 what the engineers can tell us about how to do the
22 studies and what data and so forth is necessary to
23 do these kinds of studies.

24 And then what we would do is once we've
25 established that base, bring it back to the

1 workshops and then more formally to the Commission
2 in regards to, okay, now let's codify whatever
3 that result is and we can weigh the policy
4 ramifications.

5 What we've conceived of in our proposal
6 is really a three-part test in looking at
7 deliverability. The first of all is the issue of
8 are there any constraints in a generator getting
9 out to the overall control area. In other words,
10 a generator being constructed that is behind some
11 transmission constraints shouldn't be fully
12 counted if we're talking about trying to meet peak
13 low obligations across the whole control area.

14 The second part of the test would look
15 at now if we're talking about bringing in
16 resources outside of the control area, we
17 certainly have limited interties and we need to
18 understand or at least make sure that all LSEs are
19 not forecasting that they could bring in external
20 resources over, let's say for example, the same
21 intertie. And then it be infeasible from an
22 operations perspective. So, intertie evaluation
23 would be the second part of the deliverability
24 test.

25 And then finally there's a third test or

1 portion of it which is the point I think you were
2 driving at, which goes to the locational
3 constraints. Is there load that is in some way or
4 another behind a constraint on the transmission
5 system. Now, clearly if we use the San Francisco
6 Peninsula as an example there may be generators
7 within that load pocket, but there is also
8 transmission that's available to serve that load,
9 as well.

10 What we need to understand is, is that
11 transmission sufficient to serve all of the load,
12 or is there some dependency on the internal
13 generation in that load pocket. If so, then there
14 may need to be some special procurement
15 requirements that are laid out.

16 Now, clearly what the deliverability
17 test would do is just simply say that that
18 generator needs to be fully counted towards a
19 resource adequacy obligation and may need to be
20 fully committed towards a resource adequacy
21 obligation.

22 What that does then is it allows, in the
23 broader context of the procurement proceeding, to
24 weigh the costs of whether to rely on that
25 particular resource, or should a load serving

1 entity bring to the Commission an alternative for
2 new transmission. And, of course, the third
3 alternative, should there be some demand response
4 or other load based proposal.

5 And obviously through the procurement
6 proceeding is that's where some of those economic
7 tradeoffs would occur. But what we're hoping to
8 do with the deliverability test is make sure of
9 that. We know that if we're going to count a
10 particular resource, it can actually be with some
11 confidence, going to show up to serve the load on
12 at least a peak load condition.

13 The second piece I wanted to share with
14 you is your question having to do with RMR. I
15 think we would say, at least in the context of a
16 resource adequacy obligation, the current RMR
17 criteria is inadequate to serve these local load
18 criterias I talked about.

19 What we're going to try to do in the
20 deliverability assessment is try to make sure that
21 the assessment that occurs in some forward
22 context, and right now it seems like it would be
23 at least a year ahead the way the current PUC
24 decision reads. That that assessment needs to
25 realistically understand or anticipate what will

1 happen in terms of real time operations.

2 We may not necessarily front-load all of
3 the contingencies. That's probably not reasonable
4 from a cost standpoint. But certainly let's try
5 to make sure there's a clear line of sight from
6 what we're planning in a year-ahead resource
7 adequacy to what's likely to happen under normal
8 real-time operations.

9 So there's a quick recap on
10 deliverability.

11 PRESIDING MEMBER GEESMAN: Do you
12 envision the test being used for a multi-year
13 period? Or are you inherently limited to simply
14 looking at the next year?

15 MR. PETTINGILL: Well, the decision
16 seems to contemplate that even the long-term
17 resource plans by the load serving entities,
18 principally the utilities, they would be putting
19 forward a ten-year plan, as well as something
20 shorter. And in this case right now it's pretty
21 clear they have a resource adequacy obligation
22 that is one year out.

23 So that's probably going to be part of
24 this discussion on deliverability. How do you do
25 a deliverability test when you're looking out as

1 far as ten years out.

2 It clearly becomes very complex when we
3 realize that the PUC wants to have utilities go
4 out with an RFP in order to procure new resources.
5 And if that were the case, then obviously it's
6 going to be very difficult to, ten years out, be
7 identifying where is the resource located, and
8 then which load is it anticipated to serve.

9 So deliverability is going to be much
10 more challenging once we go beyond the one-year
11 requirement, but certainly one that we recognize
12 needs to be addressed.

13 PRESIDING MEMBER GEESMAN: Thanks, Phil.

14 MR. PETTINGILL: Sure.

15 PRESIDING MEMBER GEESMAN: Randy Hickok.

16 MR. HICKOK: Randy Hickok with Duke.

17 I've got a number of comments that I'll run
18 through quickly because they'll be covered, I'm
19 certain, in more detail as we go through this
20 process. But I'd like to get them out because
21 some of these might trigger some thoughts that
22 either staff hasn't considered or other people in
23 the industry.

24 Let me start quickly with the comment
25 that I know the most recent data that was

1 available for the CEC Staff presentations was
2 based on 2002 data. And from Duke's experience,
3 2002 was pretty horrible; but 2003 made 2002 look
4 great.

5 So, when that data gets fully compiled
6 and you take a look, you know, an example would be
7 our Morro Bay facility for 2003 had a 5 percent
8 capacity factor, of which 100 percent was most
9 offer dispatch from the ISO. So that's no-margin
10 dispatch.

11 Another brief comment on environmental
12 benefits for any plants that have once-through
13 cooling. You know, when you're doing the
14 environmental evaluation, I think we've talked
15 about it here, don't lose sight that there is
16 mitigation that is associated with that
17 generation. I know at all three of Duke's power
18 plants of once-through cooling we're currently in
19 proceedings in which we're addressing mitigation
20 payments or mitigation measures. To what extent
21 are they necessary and what would be put in place,
22 either to allow for a new plant to be constructed.
23 Or, say at South Bay, continued operation of the
24 existing facility.

25 So, yes, those plants will run to some

1 extent in the future, but there will be an
2 associated pot of dollars that probably will be
3 paid out to provide some level of mitigation.

4 PRESIDING MEMBER GEESMAN: That would
5 appear, though, in light of some of the court
6 decisions, to be a moving target right now that we
7 might have a hard time putting a fixed value on.

8 MR. HICKOK: Yeah. Oh, it's about as
9 clear as anything else is in the industry at the
10 moment.

11 Quickly, policies that are causing
12 retirement. From Duke's perspective this is an
13 issue near and dear to our heart. Greg had
14 mentioned the lack of capacity market. In our
15 mind that's the greatest one. You know, anytime
16 that you have excess generation and no requirement
17 for a capacity standard nobody gets paid other
18 than the units that actually get dispatched. And
19 so you've got a lot of vital capacity that is
20 saddled with fixed costs and no revenue stream to
21 cover it.

22 Most-offer dispatches is contributing to
23 some extent. Right now when those units are
24 dispatched under most offer, it's essentially at
25 variable costs. So I'm not getting any

1 contribution towards my fixed costs.

2 PRESIDING MEMBER GEESMAN: And how long
3 do you see the most-offer requirement staying
4 around?

5 MR. HICKOK: Personally, indefinitely.
6 If not in its current form, in some other form. I
7 don't, you know, given the debacle of the energy
8 crisis I don't see regulators being too
9 comfortable without having something equivalent.
10 Although a capacity market would address that. So
11 if you got a capacity market I think you might not
12 need the most-offer.

13 PRESIDING MEMBER GEESMAN: Well, I voted
14 for a capacity market two years ago at the ISO.
15 But I don't see us being two years closer to one.

16 MR. HICKOK: No. And I'll get to the --
17 the timeframe's pretty short, unfortunately.

18 Other things about most offer, clearly
19 it has a depressing impact on prices. Duke's
20 experience has been that just about all of our
21 available units, to some extent, are kept on at
22 minimum load just about all the time, you know.
23 They've come off right now while we're approaching
24 the traditional spring season, but for the most
25 part there's been a lot of dispatch that in our

1 mind looked irrational.

2 So you've got a lot of units parked on
3 the minimum load, cranking out megawatt hours that
4 aren't needed to meet demand. And to some extent,
5 I've got no idea how material a component that is,
6 but it serves to depress prices.

7 And finally, most-offer related, it's
8 pretty hard on the equipment, you know. Moss
9 Landing is a super-critical unit; to bring that
10 unit up, you know, subject it to the thermal
11 cycling and then shut it down eight hours later is
12 something that you would never do if you were in
13 control of your own destiny. You just don't run a
14 super-critical unit that way. Yet we've got
15 continuing problems with that being requested of
16 the equipment. So, bad on wear and tear. No
17 margin associated with it.

18 One of the things that doesn't hit all
19 people equally but I know there's a recent PG&E
20 backbone rate that has been approved and is, I
21 guess, subject to rehearing at the CEC. But that
22 backbone-only rate provides anybody that's not on
23 PG&E's backbone an additional 13 cents that their
24 competitors don't have. So, effectively if you're
25 talking about existing plants that are all down

1 laterals that were built by PG&E to serve those
2 plants, you know, back in the days that the plants
3 were made. And so Moss Landing 6 and 7, which
4 ordinarily would be fairly efficient units from
5 the standpoint of conventional technology, the old
6 plants, now their power is \$13 a megawatt hour
7 more expensive than a comparable plant should it
8 be located on the PG&E backbone. Which provides
9 incentives for all your new generation to go out
10 in the boonies, not in the load pockets where you
11 want it.

12 PRESIDING MEMBER GEESMAN: I think you
13 may have misspoke, Randy. It's subject to
14 rehearing at the PUC, not here at the CEC.

15 MR. HICKOK: Yes, I'm sorry.

16 PRESIDING MEMBER GEESMAN: We'd be happy
17 to take it on, but --

18 MR. HICKOK: It would behoove you to get
19 that right --

20 (Laughter.)

21 MR. HICKOK: NPDES mitigation payments
22 can be the death knell on a plant that's surviving
23 on marginal economics anyway. You know, my most
24 current example would be Morro Bay. At some point
25 the Water Commission would like to take up the

1 renewal of that water permit. And for a plant
2 that had no revenue last year, you know, it's
3 difficult to add on any incremental cost
4 categories.

5 The final one in policies that help to
6 shut plants down, RMR rate design. If I've got a
7 must-run plant and all of my units are designated
8 must-run, and there's insufficient market to
9 justify running condition one, which is indeed the
10 case, and my real-world example here would be
11 South Bay, I go condition two. And I get
12 regulated cost-of-service based rate. And I can
13 survive on that quite happily.

14 If I lose one of those units for must-
15 run, current must-run rate design says that you
16 allocated your annual cost of service amongst all
17 the units. So, anything that goes to units that's
18 not must-run takes a portion of your cost-of-
19 service recovery with it. And there's nothing to
20 replace it because you're shedding the least
21 efficient units which don't dispatch into the
22 market. Which, from a practical standpoint, will
23 put me in the position where if I want to be able
24 to recover the cost of providing the service, I
25 have to permanently retire the unit that just lost

1 must-run status to the point that I've got to
2 either disassemble it or throw sand in the
3 bearings so that I can convince people that unit
4 no longer exists so I can recover all the costs
5 that remain to provide the service for my three
6 remaining units.

7 So I don't know that we've seen that in
8 the market, but it's a very real possibility. We
9 came close to doing that a year ago at South Bay.

10 I think there's been some mention about
11 the need to evaluate the impact of plant closure
12 on the communities in which they currently reside.
13 Obviously there are property taxes; there are gas
14 franchise fees; there's employment; and there is
15 funding of local causes and participation in the
16 community.

17 So, for smaller towns like Morro Bay,
18 the closure of a plant has a more material impact
19 than say the closure of a South Bay in a large
20 urban area.

21 We need to look into impediments to
22 returning retired plants to service. I think
23 there might be, from my perspective, a false sense
24 of security that plants that are retired today can
25 be recovered a year or two down the line, you

1 know.

2 I've got Morro Bay units 1 and 2 are
3 mothballed. If we want to return those to service
4 I can do that within a matter of a month or two.
5 But every day that goes by that becomes less true.
6 And if I retire a facility I'm retiring the
7 facility because I don't think it has a viable
8 economic future. And I'm likely to shut it down
9 hard. I'm not going to spend money on -- power to
10 keep the rotor rotating. It costs a lot of money
11 to mothball a plant and keep it mothballed. And
12 if I'm seeking to avoid losses, you know, I'm not
13 going to pay the cost associated with keeping the
14 staffing, the -- power and the light for the
15 plant.

16 Some of those costs, you know, I've got
17 to maintain my water permit. I'd have to retain
18 my boiler permit. I've got air permits that I'd
19 be at risk of losing. My emissions allowances
20 atrophy, so if I'm shutting down a plant and hope
21 to repower and use air credits, I need to get that
22 filing in soon before the lack of dispatch
23 atrophies all my emissions credits and I can't
24 build anything.

25 If I've shut down a plant I'm going to

1 be evaluating whether I should be salvaging the
2 equipment and selling my air credits to somebody
3 else who might want to build a plant in order to
4 get whatever money I can out of the retired asset.
5 And obviously if I did that then you can't run the
6 plant should you try to reactivate it.

7 A big hurdle that may not be on people's
8 radar screen is tax relief from the writeoff. For
9 corporations like Duke, which have other
10 affiliates who are actually making money, these
11 plants can be worth more dead than alive. You
12 know, if the plant is not making money, if it's
13 hemorrhaging cash and I shut it down and
14 permanently abandon it, I get to write off the
15 value of the plant which provides a tax benefit
16 which can be material.

17 Mothballing is expensive because I got
18 to pay for -- power, I've got to pay for
19 insurance, I got to keep it staffed to some
20 minimum level. And I've got to pay property taxes
21 and insurance, which I can largely mitigate if I
22 retired the plant and tear it down and do
23 something else with the property.

24 Alternative uses for the property. All
25 of my plants are coastal plants. Lots of people

1 coveting the real estate. And we're not
2 interested in getting in the real estate business,
3 but it's one of the things we'd evaluate for a
4 plant that's not economically viable.

5 And then there's always potential for
6 required SCR retrofits. There's nothing existing
7 right now. If CARB succeeded in passing
8 legislation, which they have tried in the past,
9 that would require mandatory retrofitting of
10 plants that haven't yet been retrofit, for a
11 facility like Morro Bay, that's likely to push it
12 over the edge.

13 I think you've already mentioned that
14 all the coastal sites have potential synergy with
15 desalination projects, so we're not in the water
16 making business, but we have been approached at
17 all of our plants with proposals to build
18 desalination. And I know that at Monterey that is
19 a very real possibility. So there is some
20 additional benefit to the community that could be
21 realized by having operating plants there that
22 have the outfall that can be used.

23 Again, we're happy to cooperate. I know
24 Greg said they're willing to cooperate. I don't
25 know that you can do this analysis without

1 understanding what it costs to keep a plant in
2 operation.

3 One of the best sources that you have
4 there, to the extent that facilities are must-run,
5 those are cost-of-service based rates, and those
6 rate filings are a matter of public record. So if
7 you wanted to know what it cost to run South Bay
8 or the Oakland power plant, you know, that stuff
9 is readily available. If you all don't have it,
10 we could provide it.

11 And to the extent that we don't have
12 must-run facilities, we're happy to share that
13 information, presuming that we can get some
14 suitable confidentiality language.

15 Finally, you know, my concern is this is
16 a great study to happen and I think we'll find out
17 a lot of things. But, for some facilities it may
18 be too late. There's only a limited amount of
19 time that you can afford to hemorrhage tens of
20 millions of dollars with a facility before you
21 decide to shut it down and walk away.

22 So, you know, I don't feel that I have
23 the opportunity to go to my executive directors
24 and tell them that I want to sustain a plant
25 operating at a \$20 million loss every year based

1 on the potential that there will be a regulatory
2 solution that may come this year or next year.

3 So, unfortunately I think the timeframe
4 for all the conventional plants in this
5 environment is probably a pretty short one.

6 Thank you.

7 PRESIDING MEMBER GEESMAN: Thank you.

8 Anybody else care to comment? Sir.

9 MR. KRUPP: Karl Krupp from GreenAction.

10 I'm sorry, I seem to be taking up a lot of the
11 Committee's time --

12 PRESIDING MEMBER GEESMAN: No, don't
13 feel bad about that.

14 MR. KRUPP: -- but there aren't many
15 environmentalists here so I just want to make sure
16 that we cover a couple of points.

17 One is that I believe the CEC, you know,
18 has got a statutory responsibility to include
19 environmental justice in its activities. And I
20 will, you know, I'm really hopeful. And, again, I
21 know that engineers quail at the idea of trying to
22 quantify these sort of things, that you actually
23 set out to find some ways to look at that issue.
24 And I think it would be really helpful for the
25 state-at-large if you included some kind of

1 component in your report and in your study.

2 The second thing I wanted to mention is
3 just kind of an overall thing, and it has to do
4 with RMR. Unfortunately, and this kind of was
5 said at a meeting by a rather sage-like friend I
6 have. He said if you had a car and it wasn't
7 running and you went out there every day and it
8 wouldn't operate, and so had to take a bus, you
9 wouldn't go out and buy a second car that was in
10 bad condition, or lease one. So that every two
11 days when you went out there if one wasn't working
12 then the other one might be, you wouldn't go out
13 and lease a third one and do the same thing.

14 You know, that's really what's happening
15 with the RMR process. We have to find some kind
16 of solution here. Not just because these old
17 plants are inherently reliable going out and RMR-
18 ing more of them.

19 You know, that's really what the
20 community is facing right now. Each time one of
21 these things breaks down it feeds into this whole
22 process, this institutional prejudice to try to
23 get security in the system.

24 And the ISO goes out and it RMR's some
25 more unreliable plants. So, what I would like to

1 suggest is that, in a lot of ways, the system is
2 just broke. And I'm hoping that, you know, that
3 you begin to look at what the long-term solutions
4 are instead of just keep on keeping on with these
5 short-term fixes that tend to exacerbate a lot of
6 the problems that the communities face.

7 Thank you.

8 PRESIDING MEMBER GEESMAN: Well, let me
9 respond a bit to that. Because several of those
10 subjects are issues that the Commission has
11 attempted to address in other studies and other
12 proceedings.

13 For one, I think the RMR, the volume of
14 RMR contracts has declined somewhat over time. As
15 best I understand it, that's largely been a
16 product of transmission upgrades that have taken
17 place. And I would suspect that in an overall
18 sense, pushing that reliance on RMR contracts down
19 further will also require correspondingly more
20 transmission system upgrades.

21 That's a theme that this Commission has
22 embraced for a couple of years now, and I think
23 one that is getting traction within state
24 government. But it's not without its community
25 impacts, as well. No one appears to really be

1 rushing out to embrace new transmission lines in
2 their community.

3 Secondly, I think as it relates both to
4 the RMR system, itself, and Randy Hickok's
5 comments about the way in which the system is
6 dispatched, that's simply beyond our scope. And I
7 hate to be in the situation of telling you, well,
8 you guys need a different agency for that. But,
9 in reality, our agency functions best when it
10 tries to zero in on the jurisdictional authority
11 that it has, and work cooperatively with other
12 agencies that have different jurisdiction.

13 And I think that the ISO does have a
14 continuous review process of its RMR methodology
15 and policy. And I think a continuous internal
16 evaluation process of the way in which it
17 dispatches the system.

18 For purposes of this study, which we're
19 going to focus on the period between now and 2008,
20 I think we simply have to take the existing RMR
21 approach and the existing dispatch approach as
22 givens. To the extent that there are changes or
23 improvements in those, those changes or
24 improvements will come from within the ISO. They
25 won't come from anything that this study is really

1 called upon to focus.

2 Are there any other comments? Barbara?

3 MS. GEORGE: Barbara George, Women's
4 Energy Matters. I wanted to caution the
5 Commissioners against the notion that we have to
6 build our way out of the problem of all the power
7 plants by building more fossil fuel generation and
8 transmission.

9 That's oftentimes thought of as the
10 solution for this problem, but I really don't
11 think that it's the best or certainly not the most
12 economic solution. And over time I think it will
13 come back to bite us.

14 Because if we do build more power
15 plants, I know that the new ones use less gas than
16 the old ones, but if we continue to go down that
17 route we'll be forced to go into the LNG area.
18 That's already being pushed on us. And I really
19 think that that's going to create some major
20 problems, and there's going to be a lot of
21 opposition in the public to that.

22 What we need to determine is what it's
23 going to cost to build the goldplated system that
24 the ISO is insisting on. They basically are
25 telling us that the closure of Hunter's Point and

1 Potrero depend on all these other things, not just
2 simple replacement of those power megawatts, but
3 all of these other things, because they claim the
4 old system wasn't adequate. And they're talking
5 about building practically twice over what is
6 already there.

7 I think we really have to look at what
8 the public cost of building that system is. For
9 instance, the Jefferson-Martin line started at 110
10 megawatts four years ago; now it's up to --
11 megawatts -- million -- now it's up to \$260
12 million dollars. And the power plants require a
13 huge investment.

14 The power plant fellow from WCP said
15 that there's a benefit to the cities from the
16 utility users tax. I would like to point out that
17 there's much more benefits to the cities from
18 energy efficiency and renewable energy. With
19 energy efficiency everybody's bill goes down.
20 There's that much more money to circulate in the
21 economy. Obviously there's also, in public power
22 cities, there's much more benefit than they ever
23 get from the utilities users tax because the
24 public power cities in California have 40 percent
25 cheaper power than the other PG&E system is giving

1 us.

2 But if you look at the whole cost of
3 building new power plants, you've got the power
4 plant, itself, which is a very large upfront cost.
5 And essentially even though it's a very large
6 cost, itself, it's just the syringe that locks you
7 into buying all that fuel down the line, the drug,
8 what's really going to cost money as time goes on
9 and the gas prices become higher because of the
10 LNG problem

11 LNG, obviously you've got to consider
12 financing wars around the world. I mean I know
13 that's not part of your jurisdiction, but it's
14 certainly something to think about.

15 Costs of transmission is really high.
16 Health costs, of course, don't usually get
17 factored in. But in the low income minority
18 communities, which is where these power plants are
19 almost all located, the health costs are very
20 high.

21 I don't know whether the emissions, on
22 the chart that I asked about earlier, the
23 emissions were only looking at the NOx emissions.
24 And I think the particulate emissions are a huge
25 problem healthwise. Certainly for asthma and I'm

1 sure some of the cancers that are rampant in the
2 Hunter's Point.

3 I asked you to look at the return on
4 investment for the public from investing in energy
5 efficiency and renewable energy. I hear a lot of
6 talk about investing public money in more power
7 plants and LNG facilities. I don't hear about
8 public money being invested in energy efficiency.
9 That's the cheapest power we can get; that's the
10 fastest power that we can get is to quit using as
11 much as we already use.

12 And the ability to get more energy
13 efficiency is vast. And is true in every area of
14 the economy. All types of facilities have a great
15 capacity for energy efficiency. And in
16 particular, the new construction, which is one of
17 the places that they're looking at as oh, we need
18 more power plants because California continues to
19 grow and add more people and more industrial
20 facilities.

21 There is a capacity for having those new
22 developments be the types of buildings that we
23 should be having in the future, which would
24 maximize energy efficiency, maximize solar,
25 passive solar heating and cooling, and also self

1 generation.

2 I'd like to point out that the Greater
3 Bay Area figures that were described by the air
4 quality person don't include 800 megawatts of
5 distributed generation QFs. You really have to
6 watch out for the numbers that you get from ISO.
7 They just don't include all of the pieces. They
8 tend to lowball generation, and they tend to not
9 count some of the things that are more, maybe they
10 consider it futuristic, like distributed
11 generation.

12 So, I urge you to look at the real cost
13 to the public of these things, and I also have to
14 say, I mean I'm sitting here in a room watching
15 presentations with Reliant and Dynegy and Duke
16 talking about all the benefits from their power
17 plants. And I just can't help but remember the
18 article about the control room at Reliant where
19 they were sitting there watching a clock and
20 saying, okay, you know, we're going to give a
21 certain amount of power at the top of the hour,
22 and then they would drop their power; watch the
23 price go up; and then they would jam on the power
24 so that they could get as much money as they could
25 in the middle of that hour.

1 And what they were doing by drag-racing
2 their power plants, killing our economy, and also
3 destroying those power plants, so they probably
4 are much more polluting than they used to be. And
5 I just have a lot of trouble noticing that there's
6 been no consequences for these people. They still
7 own the plants. They're still able to make money
8 off of us. And I don't know where that fits into
9 all of this, but it sure bothers me.

10 Thank you.

11 COMMISSIONER BOYD: I'd like to make a
12 comment. Ms. George, you have been here a lot
13 over time and I think you know this organization
14 better than you just admitted.

15 I think you must be aware of the fact
16 that the energy action plan or the energy plan, as
17 we try to call in in shorthand, acknowledges
18 efficiency as the number one priority. That
19 priority has been echoed by all the other energy
20 agencies in California. The so-called energy
21 action plan acknowledges efficiency as the number
22 one priority. So I don't think there's a bias
23 here towards building our way out of this by just
24 building generation.

25 There's certainly no objective here or

1 in any public agency that's going to remain that
2 I'm aware of, to invest in generation, in ordinary
3 generation. We spend hundreds of millions of
4 dollars each year through this agency and through
5 the PUC on efficiency and on renewable energy.

6 So, one, I mean the record needs to show
7 that. Secondly, I appreciate your point about
8 looking at the system. And I've used that word
9 before, and I think the staff is well aware that
10 this is but one leg on a stool that needs many
11 legs -- this, the aging power plant question --
12 with regard to solving our problem here in
13 California.

14 The system is, as you know, it's
15 generation which has many subsets, it's
16 transmission, it's distribution. The subsets of
17 generation include generation by gas; it may or
18 may not need LNG generation; by all those
19 renewable resources; or distributed generation.

20 And then you take into account the
21 connection between transmission planning and
22 distributed generation and what are the economics
23 and what are the efficiencies, et cetera, et
24 cetera.

25 I think most of us who live with this

1 are quite cognizant of all these interconnections.
2 And last, but not least, is the environment,
3 environmental justice and what-have-you.
4 Unfortunately, we're living with a couple of
5 facts. Forty years ago when some of these plants
6 were built there were probably fewer than 20
7 million people in California. Now there's 35
8 million.

9 Secondly, my personal opinion is that
10 lousy land use planning in this state has led to
11 the development of housing and what-have-you right
12 up to the fenceline of industrial projects that
13 should never have been allowed. And then that
14 creates the dilemma that we now have to work out
15 way out of with even less land to use.

16 So we're quite cognizant of the public
17 health ramifications of a lot of this, and we're
18 going to have to work our way out of it. I would
19 hope the local elected officials would do a better
20 job of land use planning with what's left of the
21 land in this state, and not create this dilemma in
22 the future.

23 But, you know, the iceberg that I
24 referenced earlier, we're dragging out on the
25 table. And as you hear from a lot of people, boy,

1 every inch -- or analogize it to rocks, every rock
2 you turn over something new crawls out from under
3 it. So, we recognize the dilemma.

4 We appreciate your contribution, your
5 continued persistence and contribution to your
6 beliefs and some of the issues, and we're trying
7 to all work our way out of it. We are cognizant
8 of a lot of what you say, but I would encourage
9 you, keep reminding us and telling us about it.
10 But I think the audience needs to know, either the
11 one out on the airwaves or in this room, that
12 there is a lot more going on than perhaps some
13 people believe. And we are struggling to work
14 this out within reasonable timeframes.

15 MS. GEORGE: Just one comment. I thank
16 you for all that you said. I really appreciate
17 your comments and responses.

18 What I -- I hope I'm not, you know,
19 making myself tiresome by saying on the energy
20 action plan it's got all the right ideas, but
21 where's the money. The money has been proposed
22 for -- public money I'm talking about -- has been
23 proposed for building power plants and building
24 LNG. It has not been proposed for greater energy
25 efficiency.

1 The energy efficiency money is coming
2 out of the ratepayer PGC funds right now. I'd
3 like to see a lot bigger pot of money for energy
4 efficiency. We're talking about right now PGC
5 funds are \$250 million a year around the whole
6 state. My understanding is that one of the LNG
7 facilities that's being proposed costs 300
8 million. I mean that's not a public facility, but
9 that's in the nature of the costs. And the power
10 plants are in that area, too.

11 So if you could take just one power
12 plant and double, you know, the money, the
13 financing for one power plant would double the
14 amount of energy efficiency that we're getting.
15 And given the new system where you've got
16 independent entities providing energy efficiency,
17 we're already seeing much greater energy
18 efficiency delivery than we've had before.

19 So, the potential is much greater in
20 that area. And I'd like to see some money chasing
21 those megawatts. That's what I keep trying to
22 say. And thank you for your hearing.

23 PRESIDING MEMBER GEESMAN: Barbara, I
24 think that you know a lot more than sometimes you
25 let on. And as I think you know, the Public

1 Utilities Commission is authorized not just public
2 goods charge moneys, but procurement moneys that
3 come to, I think, \$570 million a year for energy
4 efficiency programs.

5 They've also committed themselves to
6 attempting to achieve all cost effective energy
7 efficiency in their procurement process. And the
8 Energy Commission last year identified about 5900
9 megawatts of economic energy efficiency
10 improvements in our current system. So there's a
11 lot of potential there still to be captured.

12 I think you also know we have far and
13 away the most aggressive renewable portfolio
14 standard in the United States at a time when the
15 Congress is deadlocked over whether or not
16 utilities should be expected to achieve a 10
17 percent level in 2020, our utilities now range
18 from San Diego where they've gone from zero to
19 about 7 percent in 2004, to PG&E which has been
20 mired in bankruptcy for the last two years, but
21 still during the course of the program has moved
22 from 10 percent to 12 percent. And the Southern
23 California Edison Company which is already at 20
24 percent for 2004.

25 The energy action plan also committed

1 the state to a policy of declining per capita
2 electricity consumption. That's something that no
3 other public body in the United States has
4 previously embraced. And in the Energy
5 Commission's view that's an achievable target
6 based on the fact that our per capita consumption
7 has not grown very much in electricity in
8 California since the Commission started adopting
9 building and appliance efficiency standards in the
10 mid 1970s.

11 I'm not aware of any public money being
12 proposed for LNG. The only public money that I
13 know of going to power plants comes from municipal
14 utilities, which have determined, based on their
15 own elected board of governors, to invest in new
16 power plants.

17 I don't think you should give short
18 shrift to reliability considerations, though. And
19 I think that you have over-stated the economic
20 concerns about new transmission upgrades.
21 Transmission represents between 3 and 4 percent of
22 the average bill. And I would suggest to you,
23 based on the experience in the energy crisis, when
24 the blackouts in the Bay Area were largely caused
25 by a lack of adequate transmission, that that 3 or

1 4 percent represents a pittance in terms of its
2 economic value. And that the risks of under-
3 investment are much much much greater than the
4 risk of over-investment.

5 With respect to the Jefferson-Martin
6 line that you mentioned, I think the cost increase
7 that you referenced is entirely due to the
8 proposal now shifting to an all-underground line.
9 And I think that's a reflection of the local
10 community's desire to have the unsightly towers
11 and lines put underground instead. There are
12 costs associated with that, and those are costs
13 that, for the most part, our society seems willing
14 to incur.

15 Reliability is a very important
16 consideration in our planning. And I think it
17 always will be. The blackouts that we experience
18 in 2001 were estimated to cause about \$40 million
19 per hour of economic displacement. The blackout
20 in the east coast last summer was estimated to
21 cost about \$7 billion in foregone economic
22 opportunity.

23 In planning, I think we're always going
24 to err, as will the other agencies involved, on
25 the side of reliability rather than risk that

1 foregone economic activity.

2 MS. GEORGE: I am definitely for
3 reliability. I'm just saying that there are ways
4 to get there. One of the things, there's a really
5 great article recently about the possibility of
6 technology upgrades to existing transmission lines
7 which will create a lot more capable system than
8 the one we have.

9 PRESIDING MEMBER GEESMAN: Is that the
10 article that was in "The Economist"?

11 MS. GEORGE: I honestly haven't -- it
12 might be "The Economist", but I think it was
13 another one. Well, anyway, I could certainly find
14 you that article.

15 What I did want to stress, though, is
16 that the transmission -- because I know that your
17 agency is working on getting the transmission, as
18 well as the power plants, under your wing; and it
19 certainly makes sense to look at those two things
20 together. But I'd like to say that the whole
21 issue of transmission constraints, in terms of
22 energy efficiency, has been rules out of order at
23 this point. And I'd like to see that being much
24 more carefully addressed.

25 And one of the things that we would need

1 in order to address it would be disaggregated
2 information about transmission constraints, which
3 is currently not available. Maybe that's
4 something that you could do something about,
5 getting those figures like the Energy Commission
6 used to provide. That would be a big help.

7 PRESIDING MEMBER GEESMAN: Well, I'd
8 invite you to participate in our future workshop
9 on the transmission subject matter of the 2004
10 update. Because one of the things that we do hope
11 to begin work on is assessing non-transmission
12 alternatives to transmission lines.

13 MS. GEORGE: Great.

14 MS. HARRISON: Commissioners, I kind of
15 want to keep things straight here. Commissioner,
16 you had stated once before when you were talking
17 about cost and you were addressing Barbara. And
18 it occurred to me sitting here, coming from a
19 totally lay person, I'm not an engineer, never
20 intended on being one. So you need to understand
21 that I look at things in a totally different kind
22 of light. And my whole means for being here is to
23 get you to look at things in a whole different
24 kind of light, okay?

25 So, and I'm a rather aggressive type

1 person when it comes to that because I live in a
2 community that, to this day, is still suffering
3 with the highest of you-name-it and we-have-it.
4 Okay. So, forgive my aggressiveness. If I speak
5 out of turn, please stop me. That's not going to
6 mean that I'm not going to do it again. It simply
7 means that I will address it at that time.

8 A couple of things I want you guys to
9 really pay attention to when you start talking
10 about costs and all these high costs for going
11 underground with these lines. Nobody really asked
12 the community whether they wanted them above the
13 ground or under the ground.

14 PRESIDING MEMBER GEESMAN: I suspect
15 we're talking about different communities.

16 MS. HARRISON: Well, actually let me
17 tell you how that really came about when it came
18 to Bayview/Hunter's Point. It came about when it
19 was suggested that it would be aesthetically
20 pleasing to put them underground in Hillsboro and
21 all these nice rich communities, and then come
22 back up on top when you got to our part of town.
23 At which point common sense tells me, excuse me,
24 we're talking about what's aesthetically pleasing
25 to somebody else, and then what's got to be okay

1 for us, whether we want it or not. So I think you
2 need to rethink that whole thought.

3 But when you're talking about cost and
4 the increase of cost for that, you need to throw
5 in the cost of the hospital visits that many of
6 the residents that I represent from Hunter's View,
7 from the public housing, from the low income
8 housing that is adjacent to that, that means from
9 less than 50 feet across the street from PG&E's
10 power plant, depending on which direction you
11 walk, that ten blocks to the Mirant plant.
12 Actually if you take the cuts like the kids
13 normally do, would be more like four and a half
14 blocks. If you know where you're going and how to
15 get there. So when I say it's within walking
16 distance, please believe me, it is definitely
17 within walking distance. I don't even like to
18 walk that well, and I can do it. So that tells
19 you how close it is.

20 But when you have an escalated visit to
21 the hospital, and many of those visits are not
22 being paid by the residents because they can't
23 afford the health care; it's being paid by the
24 state. When you compare those costs to the
25 additional cost of those lines, to the additional

1 cost of that RMR contract that you've giving out
2 that's running for nothing, whether it runs it's
3 being paid, whether it runs or not, the emissions
4 that are coming out of there, when you have to
5 start this thing up all of a sudden and it spills
6 out all of this garbage.

7 And you're not looking at the PM10s that
8 are coming out, the particulate matter. More or
9 less I understand that you guys, no one is
10 actually looking at the 2.5 which is, to us, are
11 the most dangerous that comes out of these plants.
12 The cost all of a sudden takes on a whole
13 different picture. I want you guys to see that
14 picture.

15 Look at that picture. Every time you
16 think about cost, think about every third day that
17 somebody in my community's child is now on their
18 second visit to the hospital because the school
19 called and they're en route while you're trying to
20 get across town to the hospital to meet them there
21 because your child can't breathe because they
22 can't go outside and play.

23 Okay, you have to start thinking about
24 those things. You have to think about the many
25 visits that the air quality, or lack of air

1 quality in our community has, because we are, as
2 you said, Commissioner Boyd, who in the devil
3 planned to put this many people that close to so
4 much bad industry.

5 And I won't speak for communities that I
6 don't know about, even though I've been invited to
7 come and educate some folks on what's really going
8 on and how we're educating our community, and
9 going after you guys to put us back in this little
10 picture frame. Who did that? And how do we get
11 them to step outside of that little box, because
12 Bayview/Hunter's Point is surrounded by two major
13 freeways. Major source of pollution.

14 Two power plants within walking distance
15 from each other. A large sewage plant. The Naval
16 Shipyard. And we don't even want to go there and
17 let me try to explain to you what's there. And by
18 the way, you need to know that I sit on the
19 Restoration Advisory Board. Until this date I am
20 the oldest and the longest sitting member on that
21 board. Not agewise oldest, but I'm getting there.

22 And I'm getting there fast because early
23 on I discovered that every time my daughter calls
24 me to tell me that my grandson is en route to the
25 hospital, she has no vehicle, which means that I

1 have to take off from my job. That costs me
2 dollars. She has no medical insurance so she has
3 the MediCal which costs the state. It don't only
4 cost me, but it costs you, too.

5 Okay, for every time one of my grandsons
6 have to spend a night or two nights in the
7 hospital because they prefer to give him
8 injections instead of putting an oxygen mask over
9 his face and teaching him the practices that I've
10 learned to do, that I'm teaching my moms how to do
11 with their children who are suffering.

12 Every time a three-year-old can sit down
13 and tell you how to measure their medication into
14 this machine, hook it up, put the mask on their
15 face, and how long they have to sit there to
16 breathe this in because it feels like somebody's
17 beating them in the head and in their chest.

18 You start to look at other ways and
19 means. Put us back into the picture. When you're
20 talking about money, talk about people's lives and
21 their health. Because, believe it or not, you
22 guys are going to pay for that out of your pockets
23 because you're going to pay these utility bills.
24 And by the way, my community, especially the
25 community in which I represent in public housing,

1 these are people who pay more for their utility
2 bills who live right across the street from one of
3 their demons, than they do for their rent and
4 their groceries. Okay. In a month's time they're
5 paying upward to \$400 or \$500 for a utility bill.
6 And less than that, a whole lot less than that on
7 food and groceries. Then you're paying the
8 additional escalated cost out of my pocket and
9 everybody else's pocket for the two and three
10 visits a week to the hospital that's all the way
11 across town, for their children.

12 There's got to be a way around this.

13 But it's no way around it if you remove us. You
14 can't go around it by removing us. That's part of
15 the problem with the ISO. They can't seem to put
16 us into the picture, into the equation.

17 So my job is to make sure that we are
18 back in the equation. Okay. So, but I do thank
19 you for actually noting that somebody did some
20 terrible planning. I've been saying that for
21 years and everybody's been kind of blushing it off
22 because, like I say, I'm just a mother,
23 grandmother. A very confused person on how these
24 people can do such damage and not realize it.

25 We don't want another 25 or 30 years. I

1 have a 15-year-old grandson that's right now being
2 sent home from school because he can't breathe. I
3 have to go outside and call and make sure that
4 somebody was there to meet him, because I needed
5 to be here. My daughter couldn't get there
6 because my seven-year-old grandson is ill.

7 There's a problem here. There's a
8 definite problem here. And I keep it personal
9 because you need to know that without me here
10 nobody speaks for them. Without me here, nobody
11 speaks for my community. Without me here, nobody
12 actually sees a face of a poor woman or poor
13 family who is trying desperately hard to do all
14 the energy saving things that they can do. Speak
15 with some kind of understanding toward the reality
16 that we know that we need energy. What we don't
17 need is the illnesses that come behind it. We
18 don't need to have to be poisoned for 30 years and
19 then told 30 years later, gee, you know, we should
20 have talked about this 30 years ago because we
21 knew it was causing cancer then. We know it; we
22 understand it; we feel it; we live it. Put us
23 back in the equation.

24 PRESIDING MEMBER GEESMAN: I think those
25 are good points. And I think that Assemblyman

1 Warren and Senator Alquist recognized the
2 importance of some of those considerations when
3 they drafted our statute in 1974. Those questions
4 seem to come up more frequently in our siting
5 cases where we do conduct hearings in the
6 neighborhoods affected; where we do have a Public
7 Adviser enabled to provide legal advice and other
8 assistance to members of the public in addressing
9 this.

10 Doesn't come up as often in our planning
11 process. And I thank you for being here because
12 we're going to endeavor to make certain that those
13 concerns are central in the planning and policy
14 work that we do.

15 I think both Barbara and the South Coast
16 District raised an important point as it related
17 to particulate emissions. And I think that
18 sometimes our staff puts out graphs of the data
19 that's more readily available to them, in the air
20 quality area today that happened to be NOx. But
21 in the future we will make certain that the
22 particulate emissions are also reflected in our
23 review.

24 And all of the work that we do on this
25 study will also take particulate emissions into

1 effect. Fairly confident of our ability to do
2 that with respect to PM10. I am less confident
3 about the availability of the data for all of
4 these plants as it relates to PM2.5.

5 When a rule is developed by the local
6 air districts to achieve the standards for PM2.5,
7 that will be incorporated into our process. And I
8 suspect it will probably be something that's
9 addressed in the siting case that I would guess
10 we'll see you involved in --

11 MS. HARRISON: Oh, most definitely, and
12 actually you're all invited to attend the hearing
13 with the Air District that's going to be held in
14 Bayview/Hunter's Point on top of the hill.

15 Matter of fact, I'll email it to you
16 because I'd like to see you there. I'd like you
17 to get a clear-cut picture of who I am outside of
18 this person here, and some of the people that I
19 represent.

20 PRESIDING MEMBER GEESMAN: Very well.
21 Are there other comments? Anybody else wants to
22 address us?

23 Okay, well, thank you very much. This
24 is the first workshop of many that we'll be
25 holding.

1 We look to have the staff product
2 available in August. We will go step-by-step
3 through the workshops, though, to vett our
4 assumptions and preliminary conclusions.
5 Ultimately this will come before the full
6 Commission by November 1st.

7 Thank you.

8 (Whereupon, at 1:08 p.m., the workshop
9 was concluded.)

10 --o0o--

CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter,
do hereby certify that I am a disinterested person
herein; that I recorded the foregoing California
Energy Commission Committee Workshop; that it was
thereafter transcribed into typewriting.

I further certify that I am not of
counsel or attorney for any of the parties to said
workshop, nor in any way interested in outcome of
said workshop.

IN WITNESS WHEREOF, I have hereunto set
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